



/ Acctiva Battery Charging Systems for workshop and showroom



Battery Charging Systems at the Car Dealer

All modern vehicles are fitted with an ever increasing range of electronic components that are designed to improve safety, reduce consumption and increase comfort. Intelligent battery charging systems that can quickly give vehicle batteries their most efficient charge levels are therefore becoming more and more important. This is where the Fronius Acctiva series comes in. Active Inverter Technology provides the perfect charger for every requirement.



Visit us in the Internet under www.fronius.com/workshop

PRODUCT OVERVIEW OF ACCTIVA BATTERY CHARGING SYSTEMS

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Batteryvolta ge[V]	Authresto ourer(A)	Batterycapacity [Ah]	Allbatterytype s**	Charger type		Capacity preselect pn	Testfuncti	Tricklemo	LEDindica tor	Displa y	ວ່າ D	Overdangi ngprotection	Rapidchar ging	Rews spol artyprob cf ion	USBport	Edgeguar d	IPprotectionda ss	Metrov Tapl (A C) (2) (5)	Housingunit*	Chaging: haracteristi c	Refresh charact eristic	Externation Symotely	Back- upmode
ACCTIVA EASY																							
	2	1-85	•	Acctiva Easy 1202	•	-	•	•	-	•	•	•	-	•	-	-	30	100-230	1	IUoU			IUoU
12V	4	2-135	•	Acctiva Easy 1204	•	-	•	•	-	•	•	•	-	•	-	-	30	100-230	1	IUoU			IUoU
	6	3-200	•	Acctiva Easy 1206	•	-	•	•	-	•	•	•	-	•	-	-	30	100-230	1	IUoU			IUoU
24V	3	1,5-100	•	Acctiva Easy 2403	•	-	•	•	-	•	•	•		•	-	-	30	100-230	1	IUoU			IUoU
6V	4	2-135	•	Acctiva Easy 6/12	•	-	•	•	-	•	•	•	•	•	-	-	30	230	1	IUoU			IUoU
12V	3	1,5-100	•	Acctiva Easy 6/12	•	-	•	•	-	•	•	•	•	•	-	-	30	230	1	IUoU			IUoU
12V	4	2-135	•	Acctiva Easy 12/24	•	-	•	•	-	•	•	•	•	•	-	-	30	230	1	IUoU			IUoU
24V	2,5	1,5-90	•	Acctiva Easy 12/24	•	-	•	•	-	•	•	•	-	•	-	-	30	230	1	IUoU			IUoU
MULTIIPLE	E CHAR	GING CII	RCUI	rs																			
	6 x 6	3-110	•	Acctiva Easy Multicharger 06	•	-	-	•	-	•	•	•	-	•	-	-	30	100-230	2	IUoU			IUoU
12 V	6 x 3	3-110	•	Acctiva Easy Multicharger 06 UCN	•	-	-	•	-	•	•	•	•	•	-	-	30	100-230	2	IUoU			IUoU
	6 x 3	3-110	•	Acctiva Easy Multicharger 06 JP	•	-	-	•	-	•	•	•	•	•	-	-	30	100-230	2	IUoU			IUoU
	2 x 15	50-300	•	Acctiva Twin 15A	•	-	-	•	•	-	•	•	•	•	-	•	40	230	3	IUoU			-
ACCTIVA	STANDA	ARD																					
12V	10	36-180	•	Acctiva 12-10	•	-	-	•	•	-	•	•	-	•	-	-	31	230	4	IWUoU			IWUoU
	20	44-300	•	Acctiva 12-20	•	-	-	•	•	-	•	•	-	•	-	-	31	230	5	IUoU			IU
24V	5	10-100	•	Acctiva 24-5	•	-	-	•	•	-	•	•	-	•	-	-	31	230	4	IWUoU			IWUoU
	10	36-180	•	Acctiva 24-10	•	-	-	•	•	-	•	•	-	•	-	-	31	230	5	IUoU			IU
12/24V	20	44-300	•	Acctiva 12/24-20	•	-	-	•	•	-	•	•	-	•	-	-	31	230	5	IUoU			IU
ACCTIVA I	PROFES	SSIONAL	35A																				
6/12/24V	2-35	3-350	•	Acctiva Professional 35A	•	•	-	•	-	•	•	•	•	•	•	•	40	230	3	IUoU	IUIoU***	IU	IU
ACCTIVA PROFESSIONAL FLASH																							
12V	2-70	10-250	•	Acctiva Professional Flash	•	•	•	•	-	•	•	•	•	•	•	•	21	230	6	IUoU	IU	IU	IU
,	2-70	10-250	•	Acctiva Professional Flash UCN	•	•	•	•	-	•	•	•	•	•	•	•	21	115	6	IUoU	IU	IU	IU
ACCTIVA S	SELLER																						
12V	30	-	•	Acctiva Seller	•	-	-	•	•	-	•	•	•	•	•	•	40	230	3	IUoU	- 1	-	-

^{*} Housing dimensions lxwxh [mm] | 1: 119x72x52 | 2: 584x288x98 | 3: 270x162x88 | 4: 180x142x70 | 5: 285x142x70 | 6: 315x110x200

^{**} Battery types: standard batteries, lead acid, Ca-Ca, AGM, spiral, gel (VRLA), sealant ...

^{***} Capacities from 35Ah



Acctiva Professional Flash

ACCTIVA PROFESSIONAL FLASH

Battery Charging System

Applications

Diagnosis & charging mode:

Supplies parallel loads during diagnosis. The charger offers maximum safety during this process, with a current of 70A.

External power supply without battery, e.g. during

battery change, in showrooms or at trade fairs.

Refresh mode:

Low-power batteries can be recharged in this mode (desulphating). This process takes place via a microprocessor-controlled IUIoU characteristic.

Rapid charging thanks to Active Inverter Technology

Product Information

Electronic reverse polarity protection, thermal overload protection, safety cut-out, electronically safe

For **(re)charging or charge conservation** of conventional lead acid, lead calcium/silver batteries or sealant type (AGM, MF), as well as maintenance-free lead gel batteries, without disconnecting from the vehicle power supply

Based on Active Inverter Technology

Investment protection because of integral USB port for constant up-dates

Application Areas

Art -No

DC.

vehicle workshop (diagnosis, software updates, showroom, trade fairs, vehicle premieres)

ArtNo.	PG	Description
4,010,140	68	Acctiva Professional Flash Display, 230V / 12V - 70A Charging lead 16mm² red, black 5m screwable Fully-insulated screwable terminals Plug-in mains lead 5m USB-interface User Manual
4,010,140,800	68	Acctiva Professional Flash UCN USA with the same scope of delivery
4,010,140,801	68	Acctiva Professional Flash UCN CANADA with the same scope of delivery

ACCTIVA PROFESSIONAL FLASH ACCESSORY

Description



ArtNo.	PG	Description
4,045,974	68	Trolley Professional for Acctiva
	_	Professional Flash with casters
40,0006,0124	3	System case for Acctiva Professional
		Flash (without device)
4,001,700	68	Wall bracket (without device)
42,0406,0295	6	Carrying strap
43,0004,2858	68	Charging lead for Acctiva
		Professional Flash
		Charging lead 16mm², 5m screwable
		with fully insulated screwable terminals
43,0004,2881	68	Terminals for Acctiva Professional
		Flash up to 16mm² black
		80A *) / 600A 15 sec.
43,0004,2882	68	Terminals for Acctiva Professional
		Flash up to 16mm² red
		80A *) / 600A 15 sec.
42,0405,0530	68	Edge guard (2x)
43,0004,2862	621	Mains lead EU, 5m (plug-in)
43,0004,2864	621	Mains lead CH, 5m (plug-in)
43,0004,2863	621	Mains lead UK, 5m (plug-in)

^{*)} constant load



ACCTIVA PROFESSIONAL 35A

Battery Charging System

Applications

Charging:

Automatic charging and battery support system for parallel consumers during short service periods.

Diagnosis and software updates:

Buffering mode supplies the parallel consumer with energy during diagnosis and software updates. The battery charging system delivers a current of up to 35A.

Battery change:

Back-up mode ensures that user settings in the vehicle are retained while the battery is being changed.

Power supply mode:

Guarantees an external power supply without any support from the battery.

Refresh mode:

Low-power batteries can be recharged in this mode (desulphating).

Product Information

Animated user guidance display for ease of use and the highest levels of reliability.

Rugged, compact housing for a range of uses in your workshop

Plug-in charging and mains cables (in different lengths)

Edge guard provides stability and protects paint from damage

Optional **USB interface** for updating the charging system software ensures long-lasting and future-proof usage

Application Areas

In the workshop for cars, HGVs buses, motorcycles, emergency vehicles, construction machinery and agricultural machinery

KonfigNo.	PG	Description	
951	604	Acctiva Professional 35A	
		Obligatory Option	
	604	Wall housing	inclusive
	604	Display	inclusive
	604	Setup Acctiva Professional 35A	inclusive
	621	Instruction manual	inclusive
	604	Mains lead EU, 2m (plug-in)	inclusive
	604	Charging lead, 10mm², 2,5m / terminals 80A	inclusive
	604	Edge guard (2x)	inclusive
	604	Acctiva Professional 35A UCN USA	
		with the same scope of delivery	





onfigNo.	PG	Description	
954	604	Acctiva Professional 35A Car Edition	
		Obligatory Option	
	604	Wall housing	inclusive
	604	Display	inclusive
	604	Setup Acctiva Professional 35A (system case)	inclusive
	621	Instruction manual (DE,GB,F,IT,NL,ES,PT,CZ)	inclusive
	604	Mains lead EU, 5m (plug-in)	inclusive
	604	Charging lead, 10mm², 2,5m / terminals 80A	inclusive
	604	Edge guard (2x)	inclusive

ACCTIVA PROFESSIONAL 35A ACCESSORY



Art.-No. PG Description

40,0006,1184 70 System case (without battery charging system)

4,001,722 604 Wall bracket "Snap-in"

43,0004,4280 604 Charging lead, 10mm², 2,5m / terminals 80A 43,0004,4120 621 Charging lead, 10mm², 5m / terminals 80A

accional 35A

4,100,545 621 Charging status indication

43,0004,2951 621 Mains lead EU, 2m (plug-in) 43,0004,2862 621 Mains lead EU, 5m (plug-in) 43,0004,2864 621 Mains lead CH, 5m (plug-in) 43,0004,2863 621 Mains lead UK, 5m (plug-in)

4,100,575 621 External Start Stopp

4,100,857 67 USB interface - Update



ACCTIVA SELLER

Power Supply

Applications

The vehicle is powered in the showroom by the Acctiva Seller, not the starter battery. This back-up mode prevents charging cycles in the starter battery.

Charging and recharging the often heavily-used batteries in the display vehicle.

Product Information

Power supply based on Active Inverter Technology. Specially developed software combines the advantages of an IUoU characteristic with an external power supply to treat the battery as gently as possible. This technology eliminates charge and discharge cycles in a starter battery, thereby preserving the battery capacity.

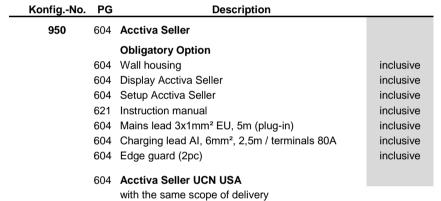
Electronically safe thanks to electronic reverse polarity protection, thermal overload protection, safety cut-out and short circuit protection.

Fanless design allows the chargers to supply power and charge batteries silently, making unwelcome fan noise a thing of the past.

Plug-in charging and mains leads. The leads can be fed to the battery or the Acctiva Seller through the smallest openings in the engine compartment or the boot.

Edge guard makes the Activa Seller slip-proof and prevents paint damage and dents if dropped on the vehicle bodywork.

Special housing construction allwos the use of a T locking system (e.g. Kensington lock), providing unrivalled security against theft.





ACCTIVA SELLER ACCESSORY

ArtNo.	PG	Description	
40,0006,1184	70	System case	
4,001,722	604	Wall bracket "Snap-in"	



43,0004,4120 621 Charging lead, 10mm², 5m / terminals 80A

4,100,545	621 Charging status indication
43,0004,2951	621 Mains lead EU, 2m (plug-in)
43,0004,2862	621 Mains lead EU, 5m (plug-in)
43,0004,2864	621 Mains lead CH, 5m (plug-in)
43,0004,2863	621 Mains lead UK, 5m (plug-in)



Acctiva 12-10



Acctiva 24-5



Acctiva 12-20



Acctiva 24-10



Acctiva 12/24-20

ACCTIVA STANDARD

Battery Charging System

Applications

Charging mode: Automatic charging with IUoU characteristic

Trickle charging: Consumer loads switched on and in use during charging (e.g. powering demonstration vehicles in the showroom, etc.)

Product Information

Electronic reverse polarity protection, thermal overload protection, safety cut-out, electronically safe

For **(re)charging or charge conservation** of conventional lead acid, lead calcium/silver batteries or sealant type (AGM, MF), as well as maintenance-free lead gel batteries, without disconnecting from the vehicle power supply

Based on Active Inverter Technology

Application Areas

Cars, motorcycles, buses, construction machinery, agricultural machinery, vintage cars, caravans, light aircraft, boats

ArtNo.	PG	Description	
4,010,009	61	Acctiva 12-10 Wet&Gel 12V - 10A 1,5m charging lead with terminals	
4,010,010	61	Acctiva 24-5 Wet&Gel 24V - 5A 1,5m charging lead with terminals	
4,010,080	61	Acctiva 12-20 12V - 20A 1,5m charging lead with terminals	
4,010,081	61	Acctiva 24-10 24V - 10A 1,5m charging lead with terminals	
4,010,082	61	Acctiva 12/24-20 12,24V - 20A 1,5m charging lead with terminals	

ACCTIVA STANDARD ACCESSORY

ArtNo.	PG	Description
42,0200,8891	61	Wall bracket (without device)
4,100,314	61	Set of housing feet for Acctiva 12-20, 24-10, 12/24-20 and Professional
40,0006,0982	70	System case for Acctiva 12-20, 24-10, 12/24-20 and Professional



Acctiva Twin 15A



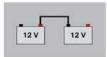


ACCTIVA TWIN 15A

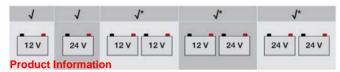
Battery Charging System

Applications

When setting up a 24 V vehicle electrical supply from two 12 V batteries connected in series, the Acctiva Twin ensures that different charge statuses are evened out even if different loads are placed on the two batteries by 12 V and 24 V consumers.



The Acctiva Twin can also be used with different battery combinations:



- Based on Active Inverter Technology
- Universal for all batteries: conventional lead acid, lead calcium/silver or sealant type (AGM, MF) batteries, and maintenance-free lead gel batteries
- Automatic 12 V / 24 V battery voltage detection
- Charge status, fault and start/stop are indicated on the LED display
- Plug-in charging and mains cables
- Highly efficient cooling system ensures stable operation
- Both battery and vehicle are 100% safe thanks to **short-circuit protection**, active reverse polarity protection, active mains voltage monitoring, automatic open circuit voltage detection (when changing a battery) plus charge phase monitoring (for faulty battery)
- Charging of deeply discharged batteries possible
- Up to 96% energy efficiency

Options

- **FireCAN** communication interfaces and **Floating contact** are used to transfer data between the battery charging system and the vehicle's electronic system.

Application Areas

Emergency vehicles, commercial vehicles, boats, caravans, etc...

Konfig-No.	PG	Description			
		Acctiva Twin 15A with CAN Fire Acctiva Twin 15A Basic			
		Obligatory Option			
	621	Wall housing	inclusive		
	621	Standard Display	inclusive		
	621	Set-up Acctiva Twin 15A	inclusive		
	621	Instruction manual	inclusive		
	621	Mains lead, EU 2m (plug-in)	inclusive		
	621	Charging lead AI 5m, 6mm²	inclusive		
Exclusively deliverable with 5m charging lead!					

ACCTIVA TWIN 15A ACCESSORY

_	ArtNo.	PG	Description
	43,0004,2862	621	Mains lead EU, 5m (plug-in)
	43,0004,4147		Charging lead, 6mm², 5m
	4,100,545	621	Charging status indication
	4,001,722	604	Wall bracket (without device)
-	BY2,0201,3195	621	Fixing battery connector
	43,0004,2864	621	Mains lead CH, 5m (plug-in)
	43,0004,2863	621	Mains lead UK, 5m (plug-in)





Charging and testing 6 batteries

ACCTIVA MULTICHARGER

Battery Charging System

Applications

Charging mode: Up to 6 batteries can be charged at the same time. After charging, the charger automatically switches over to conservation charging in order to avoid self-discharge.

Testino

The Acctiva Multicharger uses the measured open circuit voltage to determine the battery charge state.

Product Information

Electronic reverse polarity protection, thermal overload protection, safety cut-out, electronically safe

For **(re)charging or charge conservation** of conventional lead acid, lead calcium/silver batteries or sealant type (AGM, MF), as well as maintenance-free lead gel batteries, without disconnecting from the vehicle power supply

Based on Active Inverter Technology

Application Areas

Cars, Motorcycles (showroom, storage batteries)

ArtNo.	PG	Description	
4,010,089	636	Acctiva Multicharger 06	
		Multiple-circuit charger	
		6 x 12V / 6 x 6A	
		Incl. charging lead with terminals	
		(extended max. length 2m)	
		Obligatory Option	
43,0004,2951	621	Mains lead EU, 2m (plug-in)	

ACCTIVA MULTICHARGER 06 ACCESSORY

ArtNo. PG Description	
43,0004,2862 621 Mains lead EU, 5m (plug-in)	
43,0004,2864 621 Mains lead CH, 5m (plug-in)	
43,0004,2863 621 Mains lead UK, 5m (plug-in)	

ACCTIVA EASY

Battery Charging System

Applications

Charging: The Acctiva Easy charges batteries fully automatically and gently until they reach their maximum capacity. After charging, the charger automatically switches over to conservation charging in order to avoid self-discharge.

Testing: The Acctiva Easy uses the measured open circuit voltage to determine the battery charge state and the startability of the battery. To test ints performance, simply start the vehicle.

Checking: The Acctiva Easy checks the function of the alternator. Whether the voltage generated lies inside or outside the permitted range is indicated on the display.

Replacing: If the vehicle's battery is removed or replaced, stored data (e.g. radio, clock, etc) is retained. The Acctiva Easy temporarily replaces the battery as the power supply unit. Saved data is not lost.



Acctiva Easy

Product Information

Electronic reverse polarity protection, thermal overload protection, safety cut-out, electronically safe

For (re)charging or charge conservation of conventional lead acid, lead calcium/silver batteries or sealant type (AGM, MF), as well as maintenance-free lead gel batteries, without disconnecting from the vehicle power supply

Based on Active Inverter Technology



Application Areas

Workshop (Showroom, used cars), cars, motorcycles, construction machinery, agricultural machinery, vintage cars, caravans



	- 18	
12 V	1423	
12 V	10	

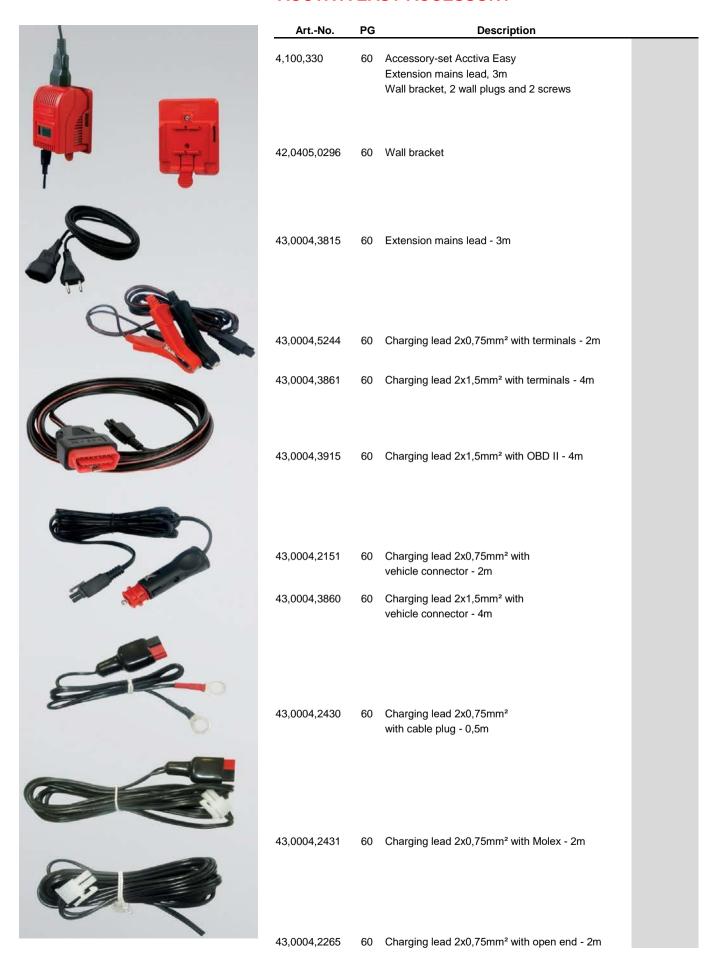
12 V		



Acctiva Easy Point-of-Sales display

ArtNo.	PG	Description	
4,010,091	60	Acctiva Easy 1202 Base unit 1202 - 12V 2A Charging lead with terminals - 2m	
4,010,093	60	Acctiva Easy 1204 Base unit 1204 - 12V 4A Charging lead with terminals - 2m	
4,010,095	60	Acctiva Easy 1206 Base unit 1206 - 12V 6A Charging lead with terminals - 2m	
4,010,098	60	Acctiva Easy 6/12 Base unit 6/12V Switchable 6V 4A; 12V 3A Charging lead with terminals - 2m	
4,010,099	60	Acctiva Easy 12/24 Base unit 12/24V Switchable 12V 4A; 24V 2,5A Charging lead with terminals - 2m	
4,010,097	60	Acctiva Easy 2403 Base unit 2403 - 24V 3A Charging lead with terminals - 2m	
4,010,095,859	60	Acctiva Easy 1206 Car Edition Base unit 1206 - 12V 6A Charging lead with terminals - 2m Charging lead with vehicle connector - 2m System case, wall bracket Extension mains lead, 3m	
40,0006,1147	67	Point-of-Sales display The POS display is ideal for use on sales and information desks as well as at trade fairs and events. Space for five new Acctiva easy sales packagings.	

ACCTIVA EASY ACCESSORY



ACCTIVA EASY ACCESSORY

	ArtNo.	PG Description	
0 1000	43,0003,0787	60 Magcode Plug 12V	
	43,0003,0788	60 Magcode Plug 24V	
<u></u>	43,0003,0786	60 Magcode socket 12V	
	43,0003,0789	60 Magcode socket 24V	
	43,0004,2526	60 Spiral charging lead 2x0,75mm² with 161.00 DIN plug	- 3m
William W.		Fire department	
The state of the s	42,0004,2522	60 Chiral aboveing load with Magaada plus. 2m	
	43,0004,2523	60 Spiral charging lead with Magcode plug - 3m Fire department	
	43,0003,0847	60 Plug adapter UK 3pol	
	43,0003,0047	oo i lag adapter on opor	

ACCTIVA EASY - BASIC UNITS

Battery Charging System



Acctiva Easy

Product Information

Electronic reverse polarity protection, thermal overload protection, safety cut-out, electronically safe

For **(re)charging or charge conservation** of conventional lead acid, lead calcium/silver batteries or sealant type (AGM, MF), as well as maintenance-free lead gel batteries, without disconnecting from the vehicle power supply

Based on Active Inverter Technology

Basic units

Every box contains 24 units Order per 24 units required



Charging status indication

Art.-No PG Description

4,010,092	60 Acctiva Easy 1202 Base unit 1202 - 12V, 2A without charging leads
4,010,094	60 Acctiva Easy 1204 Base unit 1204 - 12V, 4A without charging leads
4,010,096	60 Acctiva Easy 1206 Base unit 1206 - 12V, 6A



Three integrated test functions

4,010,101 60 Acctiva Easy 6/12

Switchable 6V 4A; 12V 3A without charging leads

without charging leads

Base unit 6/12V

4,010,102 60 Acctiva Easy 12/24

Base unit 12/24V Switchable 12V 4A; 24V 2,5A without charging leads

4,010,100 60 **Acctiva Easy 2403**Base unit 2403 - 24V

Base unit 2403 - 24V 3A without charging leads

Accessory can be found on page 11 and 12.



NOTES



GENERAL TERMS OF DELIVERY AND PAYMENT

/ Fronius International / valid from 1st June 2013

GENERAL TERMS OF DELIVERY AND PAYMENT

valid from 1st June 2013

1. APPLICABILITY

1.1 All deliveries and other services effected by ourselves, and all payments made to us, shall be exclusively governed by these Terms of Delivery and Payment. Insofar as applicable pro-visions may be found to be missing therefrom, the General Terms of Delivery of the Austrian Electrical and Electronic Industries shall apply in a subsidiary manner; in all other regards, Austrian laws and regulations shall apply. If any business terms of the Ordering Party's are at variance with these General Terms of Delivery and Payment, we shall only be bound by such divergent terms if we have expressly recognised the same by letter or by telefax.

1.2 In taking delivery of the goods and/or service, the Ordering Party acknowledges the exclusive applicability of our Terms of Delivery and Payment.

2. OFFERS

- 2.1 Our offers are without engagement and subject to alteration, unless the offer makes ex-press mention of a period of engagement. Documents pertaining to our offers such as drawings, illustrations, samples and patterns, and dimensional, weight, performance and consumption data contain or themselves constitute only approximate data and are not deemed to be specially agreed characteristics unless otherwise provided. We retain the right to effect modifications for engineering reasons.
- 2.2 We reserve the proprietary rights and copyright to all cost estimates, drawings and other documents; these may neither be disclosed to any third party nor used for the purposes of any third party.

3. ACCEPTANCE OF THE ORDER: SUPPLEMENTARY AGREEMENTS

Acceptance of an order, and any undertakings or supplementary agreements made by our employees, as well as amendments and alterations of any kind, shall not be binding upon us until we have issued written confirmation by letter, telefax or e-mail.

4. PRICE AND PAYMENT CONDITIONS; OFFSETTING

- 4.1 Prices are always the list prices valid on the date of delivery. They are ex-works prices (EXW [Incoterms in the latest version]), exclusive of packaging, insurance, loading at the factory and value-added tax; the packaging will not be taken back.
- 4.2 Payments are to be made net cash, without any deduction and free of charges, within 30 days of the invoice date. It shall be for us to decide which claims or partial claims of the Or-dering Party's may be offset against such payments.
- 4.3 If any changes in order execution are necessitated by circumstances where risk is borne by the Ordering Party, then this latter shall bear all additional costs thereby incurred.
- 4.4 If the payment period is exceeded, we shall be entitled to charge default interest at a rate of ten percentage points above the applicable base rate announced by the Austrian National Bank, plus the collection costs, such amounts to total at least 12% p.a. of the overall claim. This is without prejudice to any further consequences of default in payment.
- 4.5 It is inadmissible for the Ordering Party to withhold payments or to offset these against counter-claims which are contested by ourselves.
- 4.6 Where the Ordering Party holds claims against ourselves, we are entitled to offset these against our own claims against the Ordering Party, at any time.
- 4.7 For services performed under contracts for work and materials (installation, repairs, maintenance and other such work), we shall charge the hourly rates and materials-prices applicable at the time of completion, plus our applicable surcharges for any overtime, night-time, Sunday and public-holiday working; travel and waiting times are counted as working hours. Travel expenses and daily and overnight allowances will be invoiced separately.

5. PERFORMANCE, SHIPPING AND DEFAULT

- 5.1 The delivery period commences with the mailing of the order confirmation note, while the performance period for installation, maintenance or repair work commences when the equipment is handed over. On no account, however, shall the delivery or performance period start to elapse sooner than 14 days after the time when the Ordering Party has furnished us with the documents (e.g. engineering drawings, plans etc), permits or approvals which it is responsible for procuring, or when it has made the agreed pre-payment. The delivery or performance deadline is deemed to have been met if we have notified the Ordering Party prior to such deadline of our readiness to deliver or perform; in cases where a special agree-ment obliges us to dispatch or deliver, the delivery or performance deadline shall be deemed to have been met if the object of delivery or performance has left our factory prior to such deadline.
- 5.2 Delivery or performance periods are extended for the duration of any unforeseen impediments lying outside our sphere of influence, such as stoppages, major personnel outages, unlawful strikes, delays in supplies of essential raw materials or components or the like, as well as by circumstances where risk is borne by the Ordering Party, to the extent that these impediments and/or circumstances are of material relevance to the failure to meet the dead-line. Impediments and/or circumstances of this nature also annul the consequences of a de-fault for which we would otherwise be liable, for the duration of such impediments; any

- contractual penalty obligations which may have been agreed for specific instances shall en-tirely cease to apply. Immediate notification is to be given of the beginning and end of such impediments. We are entitled to terminate the contract, in whole or in part, if such impedi-ments should occur. In this case, unless the Ordering Party proves gross negligence on our part, damages claims from the Ordering Party shall be inadmissible.
- 5.3 If agreed delivery or performance deadlines, or deadlines that have been extended in accordance with 5.2 above, are exceeded by more than four weeks, the Ordering Party shall be entitled to terminate the contract, having granted us at least 14 days' extra time by notice given to us in a registered letter. Unless the Ordering Party proves gross negligence on our part, damages claims from the Ordering Party shall be inadmissible in this case.
- 5.4 If the Ordering Party incurs a loss from a delay for which we are liable, then it shall be entitled to compensation amounting to 0.5% per whole week up to a maximum of 5% of the value of that part of the delivery which cannot be used in time or for its intended purpose as a result of the delay. For other services, the compensation shall be 5% of the remuneration. Any damages claims going beyond the above shall be inadmissible, as shall claims for dam-ages in consequence of delays on the part of our suppliers, unless gross negligence is proven on our part.
- 5.5 In cases where we have undertaken to effect shipping, the mode and route of shipping shall be for us to decide. Goods are always shipped at the Ordering Party's risk and expense. We shall only be liable for damage if gross negligence is proven on our part. We shall only take out transport / breakage insurance by order and for the account of the Ordering Party.
- 5.6 We are entitled to effect part-deliveries.
- 5.7 Our compliance with the delivery period shall be contingent upon the Ordering Party having fulfilled its contractual obligations in all pending, still-to-be-completed business trans-actions.
- 5.8 If shipping is delayed due to circumstances where risk is borne by the Ordering Party, then this latter shall bear all resulting additional costs, such as those for storage at our facto-ry, but with a minimum monthly charge of 0.5% of the invoice amount. In such a case we shall also be entitled to grant the Ordering Party a grace period of at most 14 days, and if this period should expire to no avail, we shall then be entitled, at our own discretion, either to make alternative arrangements regarding the article(s) to be delivered and to effect delivery to the Ordering Party within a suitably extended period of time, or to terminate the contract and claim damages for breach of contract. In this latter case, we are entitled, without having to furnish any particular proof, to require 10% of the remuneration for the intended delivery as indemnification. Where appropriately substantiated, we can also claim compensation for any damage over and above this amount.
- 5.9 In the case of goods ordered on call, or ordered for production with no shipping instructions, delivery must be taken within three months. If this time limit elapses unused, then 5.8 shall apply analogously.
- 5.10 For services performed under contracts for work and materials (4.7), the Ordering Party is to provide us with the necessary equipment and auxiliary materials (e.g. winches, rails, electricity etc.) in good time and at no charge, even if installation is included in the price (4.1) or if a flat-rate price has been agreed for this. Any works needing to be carried out by the Ordering Party preparatory to installation, e.g. building work, must be completed prior to the arrival of our installation technicians. Furthermore, the Ordering Party must take all safety precautions needed for the protection of persons and property. We shall not accept liability for the ancillary personnel, equipment and auxiliary materials which may be placed at our disposal unless gross neeligence is proven on our part.

6. PASSAGE OF RISK

- 6.1 Risk shall pass to the Ordering Party as soon as the articles to be delivered, or the articles on which we have performed maintenance, repair or other work, have left our factory. The same shall also apply to part-deliveries or in cases where we have undertaken to bear the shipping charges or to perform delivery, setting-up, assembly, installation or other similar services. If the maintenance, repair or other work is carried out in the domain of the Ordering Party, then risk shall pass to this latter as soon as it has received notification that the work in question has been completed.
- 6.2 If there is any delay in dispatching or delivering the shipment for reasons for which we are not liable, the risk shall pass to the Ordering Party as soon as it has been notified that the consignment is ready for delivery.

7. RETENTION OF TITLE; RESCISSION

- 7.1 We shall retain title to the article(s) delivered until our purchase-price claims, and all other claims that we have on whatever legal grounds against the Ordering Party, have been settled in full.
- 7.2 The Ordering Party is only permitted to re-sell the article delivered even if this has been joined to other items or subjected to processing in the course of its company's regular business operations. However, this permission is precluded if the resulting claims are assigned to third parties or are the subject of an assignment prohibition, or if the Ordering Party is insolvent or in default with the performance of its contractual obligations. No other manner of disposition whatever is permitted to the Ordering Party. In the event of distrainment, confiscation or other disposition by third parties, the Ordering Party is to notify us hereof

immediately. Our legal expenses incurred in connection with the enforcement of our title are to be borne by the Ordering Party.

7.3 The Ordering Party assigns to us even now its claims and other rights from the re-sale, rental or leasing of the article delivered, even if this latter has been joined together with other items or subjected to processing; the Ordering Party shall make an entry to this effect in its books. If the article delivered is sold or placed into the hands of a third party for such party's use together with other items (regardless of whether or not it has been joined to any such items or subjected to processing), then the receivables claim shall only be assigned up to the amount of the purchase price owed to ourselves. This is without prejudice to any further damages claims.

7.4 The Ordering Party is only entitled to collect the claims and to assert the other rights to the extent that it has met its payment obligations towards us and is not insolvent.

7.5 If the Ordering Party should act contrary to the terms of the contract – in particular by being in arrears with payment or with any other contractual obligation, and/or by being in-solvent – we shall be entitled, at our own discretion, either to terminate the contract without granting any grace period or, while leaving the contract in force, to take back the article de-livered or to forbid it to be used. We shall also be entitled to sell the taken-back article in the open market; after deduction of a handling fee of 10% of the proceeds thus realised, the re-mainder will be debited from the total of our outstanding claims against the Ordering Party. Pending return of the article in the event of our terminating the contract, we shall charge the Ordering Party a usage fee of 5% of the original value of the article, unless the actual diminu-tion in its value is even greater.

8. WARRANTY

8.1 We give no warranty for ordinary deviations in size, weight or quality (or as tolerated by ÖNORM, EN or DIN standards), and also no warranty for information given regarding the suitability of the article(s) to be delivered for the purpose contemplated by the Ordering Party, or for any other particular purpose.

8.2 Although we warrant the correctness of our processing instructions, user/operating manu-als and customer advisory service, compliance with statutory or other regulations when using the articles delivered, and the testing of these articles for the purpose envisaged, shall remain the sole responsibility of the Ordering Party. We shall only be answerable for any instructions differing from our written processing instructions and user/operating manuals if we expressively previously confirmed these deviations to the Ordering Party in writing, either by letter, telefax or e-mail.

8.3 Articles or services supplied must be inspected by the Ordering Party immediately after delivery has been taken of them. Any defects must be reported to us immediately upon being discovered, in a written notice sent by letter, telefax or e-mail quoting the number and date of the order confirmation note, of the delivery note or of the invoice, and the serial and commission numbers. If the Ordering Party omits to make this immediate notification, it may no longer assert any warranty claims or claims for compensatory damages on account either of the defect itself or of any misapprehension as to whether the delivery or service was free of defects. The notice must set out which delivered items or supplied services are affected by the defects, what the defects consist of in detail, and under what concomitant circumstances these defects occurred. Every single defect must be exactly described. Any costs which we incur as a result of unjustified notices or notices that are otherwise at variance with the conditions of use are to be refunded to us by the Ordering Party.

8.4 In the case of corrective and preventive maintenance work, our warranty shall be limited to the services actually rendered. We shall only warrant correct functioning of an installation, machine, Software or the like whose components were not all supplied by ourselves if we provable have undertaken – despite the provision of certain components by the Ordering Party or by third parties – to manufacture the installation (or machine etc.) as a whole, and if the faulty functioning in question is not attributable to incorrect or incomplete information from the Ordering Party.

8.5 Unless otherwise agreed, the warranty period shall be 24 months. From the beginning of the 13th month of this period, however, our warranty shall be limited to making available, free of charge, the items needed for remedying the defects; from this time onwards, any warranty claims going beyond the above shall be inadmissible. This period limitation also applies to the supply of items deemed to be immovable and to work on items which are, or are deemed to be, immovable. The warranty period shall start to elapse upon the passage of risk in accordance with Point 6. The Ordering Party must always prove that defects coming to light during the warranty period were already present at the time of the passage of risk.

8.6 In cases where we do give warranty, we shall – at our own discretion and within a reasonable period of at least 4 weeks' duration – either exchange the defective article itself, or its defective components, for a defect-free article or defect-free components, or remedy the defect(s), or grant the Ordering Party a reasonable reduction in price, or (unless the defect in question is a minor one) cancel the contract. The warranty period is not prolonged by the exchange of the item or of parts or components belonging to the item. If, however, the remainder of the warranty period – including that part of the period during which our warranty is limited to free provision of the requisite materials in accordance with Point 8.5 – lasts for less than twelve months, then the warranty period for the exchanged items, parts or components shall be extended to twelve months. The items, parts or components thus exchanged shall become our

property. We shall not refund the costs for any actual or attempted remedying of a defect by the Ordering Party or by any third party.

8.7 To the extent that is necessary and may reasonably be expected of the Ordering Party, the object of delivery or performance, or the defective part(s) thereof, are to be dispatched or shipped to us immediately at our request, at the Ordering Party's risk and expense, failing which any and all warranty obligation on our part shall become void.

8.8 The Ordering Party is not entitled to withhold payments on account of warranty claims or other counter-claims not recognised by ourselves.

8.9 Warranty claims from the Ordering Party are excluded in cases where the installation, user and operating manuals provided by ourselves, or to be requested from us by the Ordering Party, have not been observed, or where the user has not been (fully) obligated to observe such instructions; if the installation work has not been performed properly and in accordance with the relevant Standards, and in particular if was not carried out by licensed contractors; if any corrective maintenance or other work has been performed on the object of delivery or performance without our consent; if it has been improperly operated or used, or operated despite its protective features being faulty, or taken out of the contract territory without our consent, or used contrary to our instructions or for purposes for which it is not intended; and, moreover, where defects are attributable to foreign object damage, chemical influences, overvoltage, the conduct of third parties or to force majeure; the same applies in respect of natural wear-and-tear. 8.10 Our warranty is also excluded in cases where we have been contracted to carry out re-pair-orders, to alter or modify used items, or to supply such items.

8.11. Finally all warranty claims shall be excluded if the Ordering Party installs third-party components or replacement parts in our delivery items or services provided by us which have not been expressly recommended by us prior thereto.

8.12. In addition to the rights of the Ordering Party in accordance with Point 8.6. regarding the delivery of inverters for photovoltaic systems the guarantee in accordance with the guarantee conditions of Fronius shall apply, available at www.fronius.com/solar/garantie.

9. DAMAGES AND PRODUCT LIABILITY

9.1 We shall only accept unlimited liability for damage, of whatever kind, to the extent that the Ordering Party proves that we ourselves brought about this damage either knowingly and wilfully or grossly negligently. If the Ordering Party proves that we have caused damage in an ordinarily negligent manner, our obligation to indemnify shall be limited to the damage actually incurred, and, moreover, to a maximum overall amount not exceeding the total order value. Furthermore, claims of this type may only be enforced at law if asserted within six months of the damage in question becoming known.

9.2 In the event that we are taken to law by a third party where we have produced and deliv-ered in accordance with the drawings, designs, models or other documents provided by the Ordering Party, the Ordering Party shall indemnify and save us harmless.

9.3 When using the installations, machines and other articles delivered by ourselves, the Ordering Party is obliged to painstakingly observe all safety regulations, technical rules, installation regulations, operating instructions and user manuals, and in particular all regulations applying to the electrical engineering field, and to allow only authorised skilled personnel to operate the equipment.

9.4. Any liability for damage caused by the installation or use of third-party components or replacement parts with our delivery items, which have not been verifiably and expressly recommended by us, shall be excluded.

10. CONSENT TO DATA PROTECTION

Client shall agree that Fronius International GmbH and its subsidiaries may collect, process and use personel data (such as name, address, email address), if applicable also by commissioning a service provider, for the purpose of sending information regarding products and services of any kind (e.g. by post, email, newsletter and more). A dissemination to externals in excess thereof shall not occur (excluded are legal or judicial obligations to provide information). The consent may be objected at any time in writing, in the newsletter there is also a link to unsubscribe.

11. FINAL PROVISIONS

11.1 The place of performance for deliveries, other services and payments, and the sole place of jurisdiction, shall be Wels, Austria. However, we shall also be entitled to go to law against the Ordering Party at the court which has "in-rem" and territorial jurisdiction under the rele-vant regulations for the Ordering Party's commercial domicile or place of residence.

11.2 The Ordering Party is aware that in international commerce, it is common practice that an agreement regarding the place of jurisdiction can also be entered into, in a formally effective manner, as a result of tacit acquiescence or non-reaction to a confirmatory business letter such as an order confirmation note containing a pre-printed reference to the place of jurisdiction. The Ordering Party is familiar with this commercial usage, especially in the field of business of Fronius International GmbH, and heeds it regularly.

11.3 Legal disputes arising out of the contract are to be governed by Austrian law and by the commercial practice prevailing at the place of performance. The UN Convention on Contracts for the International Sale of Goods, on the other hand, shall not be applicable (Austrian Federal Gazette 1988/96).

12. SPECIAL PROVISIONS FOR SOFTWARE SUPPLIED TOGETHER WITH ORDERED ITEMS OR SOFTWARE SUPPLIED SEPARATELY

For software delivered together with other items or for software delivered separately (hereaf-ter "software") these Terms and Conditions of Delivery and Payment only apply insofar as these do not deviate from the following conditions or from conditions agreed upon separate-ly with the Ordering Party.

12.1 SCOPE OF USE

12.1.1 All rights of intellectual property, such as copyright, trademark rights, design rights, patent rights, utility model rights and know-how, as well as in particular unprotected inven-tions, commercial experience, trade secrets and such like, independent from the time these were disclosed to the Ordering Party, shall be reserved at any time by us or our licensors. The Ordering Party shall have the right to use the software after payment of the agreed sum exclusively for his own purposes in accordance with the acquired number of licences. With the present contract only the authorization to use the software is acquired. Dissemination by the Ordering Party shall be excluded in accordance with the copyright law. With a possible participation of the Ordering Party in producing the software no rights other than the specified usage laid out in Section 12 are acquired. The Ordering Party may only use the software simultaneously on one device, which one is his decision. Usage of the software shall constitute any long-term or even any temporary duplication (copying) of the software, whether in whole or also only in part, by saving, loading, running or displaying for the purpose of execution of the software and processing of the data contained therein by the hardware. He shall not be authorized to copy the user manual.

12.1.2 The Ordering Party shall be permitted to make copies of the software for archival and data protection purposes on condition that there is no explicit prohibition in the software or any accompanying material (instruction manual, packaging, etc.) and that all copyright and proprietary notices are transferred unchanged in these copies. Retranslations of the pro-gramme code (decompilation) exceeding the legal provisions shall not be permitted.

12.1.3. If the software is equipped with technical copy protection, the Ordering Party shall in the case of damage be supplied with a replacement copy after restitution of the data carrier.

12.2 FURTHER RIGHTS

In the event of availability of a new software version the Ordering Party shall be entitled to exchange the supplied software package for a similar software package of the new version at our listed update price; the exchange implies the software package as a whole, as it was ac-quired by the Ordering Party. With the exchange Ordering Party's permission to use the ex-changed software package shall expire. In such an event the Ordering Party shall immediately and completely destroy all copies, partial copies and backup copies as well as altered or revised versions of the software and the copies, partial copies and backup copies made thereof.

12.3 WARRANTY

- 12.3.1 The Ordering Party shall note that it is not possible to develop software programmes in such a manner that these are free from defects for every application condition.
- 12.3.2 We shall warrant that the supplied software fulfils the agreed functions and has the expressly guaranteed properties. Requirement for any warranty is usage according to contract. A defect for which we are responsible shall only be deemed to exist if the software does not function according to the most recent version of the corresponding performance description/documentation and if this is reproducible by the Ordering Party. In order to carefully examine possible occurring defects the Ordering Party shall be obliged to support us in the rectification of any defects.
- 12.3.3 We further shall warrant that the original software is duly recorded onto a tested data carrier. Excepted here from are previously installed software and third-party software prod-ucts.
- 12.3.4 Software defects shall be documented by the user and we shall be notified in writing with immediate effect; otherwise 8.3 shall apply.
- 12.3.5 The warranty period shall always be twelve months; the period commences with the dispatch of the software package.
- 12.3.6 If the software package is not usable or defect (12.3.2), we shall exchange it primarily for a new one of the same title or for an adequate alternative solution. If this also proves to be unusable or defect and if we are not in a position to make it usable with adequate effort within an adequate time, but at least within a period of four weeks, the Ordering Party may demand a price reduction or a change. Costs of defect rectification by the Ordering Party or a third person shall not be compensated by us.
- 12.3.7 In excess of this (12.3.6) we shall not provide warranty, in particular not in the case of the supplied software not meeting the special requirements of the Ordering Party or user, and also not for altered or revised versions of the software (point 12.1.2), unless the Ordering Party can prove that the defects are not connected to the alterations or revisions. The Ordering Party itself is solely responsible for the selection, installation and usage of the software as well as for the results intended therewith.
- 12.3.8 In the event of unjustified assertion of defects in the software we shall be entitled to charge the Ordering Party with any incurred costs according to valid cost rates.
- 12.3.9 A change of the end-user shall exclude any warranty claims.

12.4 COMPENSATION

12.4.1 All further claims of the Ordering Party or third persons, in particular claims for compensation for damages of any kind, shall be excluded, unless the injured party can prove that the damage was caused by us either intentionally or due to gross negligence.

12.4.2 Otherwise Point 9 shall apply accordingly.

Learn more about the topic battery charging and the Acctiva battery charging systems in the below given links to different additives:

/ Detailled information as well as technical explanations about the Acctiva battery charging systems: www.fronius.com/cardealer

/ Current videos and animations demonstrate the advantages of the Fronius battery charging systems: www.youtube.com/FroniusCharging

/ All approvals and recommendations from the car manufacturers can be found under www.fronius.com/workshop

Would you like more information about Fronius battery charging systems? Send us an Email to perfect.charging@fronius.com and get current interesting information about the Acctiva battery charging systems.

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WE HAVE THREE DIVISIONS AND ONE PASSION: SHIFTING THE LIMITS OF POSSIBILITY.

/ Whether welding technology, photovoltaics or battery charging technology - our goal is clearly defined: to be the innovation leader. With around 3,700 employees worldwide, we shift the limits of what's possible - our record of over 800 granted patents is testimony to this. While others progress step by step, we innovate in leaps and bounds. Just as we've always done. The responsible use of our resources forms the basis of our corporate policy.

Further information about all Fronius products and our global sales partners and representatives can be found at www.fronius.com

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Fronius España S.L.U.

Parque Industrial La Laguna Calle Arroyo del Soto 17 E-28914 Leganés (Madrid) España Tel +34 91 649 60 40 Fax +34 91 649 60 44 perfect.charging.es@fronius.com www fronius es

Fronius Polska Sp. z o.o.

ul. Gustawa Eiffel'a 8 44-109 Gliwice, Polska Tel +48 32 621 07 00 Fax +48 32 621 07 01 perfect.charging.pl@fronius.com www.fronius.pl

Fronius Česká republika Fronius Slovensko s.r.o.

Nitrianska 5 91701 Trnava Slovensko Tel +421 335 907 511 Fax +421 335 907 599 perfect.charging@fronius.com www.fronius.cz www.fronius.sk

Fronius Schweiz AG

dell'Agricoltura, 46 Oberglatterstrasse 11 37012 Bussolengo (VR) 8153 Rümlang Schweiz Telefon 0848 FRONIUS (3766487) Gratisfax 0800 FRONIUS (3766487) sales.chargers.swiss@fronius.com www.fronius.ch

Fronius USA LLC

6797 Fronius Drive Portage, IN 46368 **USA** Telephone +1 877 FRONIUS perfect.charging.us@fronius.com www.fronius.com

ООО «Фрониус Украина» ул. Славы, 24, C. Княжичи,

Броварской район, Киевская обл., Украина, 07455 телефон +380 44 2772141 телефакс +380 44 2772144 perfect.charging@fronius.com www.fronius.ua

Fronius UK Limited

Maidstone Road, Kingston Milton Keynes, MK10 0BD United Kingdom Telephone +44 1908 512 300 Fax +44 1908 512 329 charger.sales.uk@fronius.com www.fronius.co.uk

Fronius Deutschland GmbH

Am Stockgraben 3 36119 Neuhof-Dorfborn bei Fulda Deutschland Telefon +49 6655 916 94-0 Telefax +49 6655 916 94-68 perfect.charging@fronius.com www.fronius.com

Fronius India Private Limited

GAT no 312, Nanekarwadi Chakan, Taluka- Khed District Pune 410 501. India Telephone +91 98 20 60 52 97 perfect.charging.in@fronius.com www.fronius.in

Fronius do Brasil Comércio Indústria e Serviços Ltda

Av. Dr. Ulysses Guimarães, 3389 Vila Nogueira, Diadema, SP CEP: 09990-080 Brasil

Telefone +55 11 3563-3800 Fax +55 11 3563-3777 vendas.carregadores@fronius.com www.fronius.com.br

Fronius France

ZAC du Moulin 8, rue du Meunier – BP 14061 95723 Roissy CDG Cedex France Téléphone +33 1 39 33 12 12 Télécopie +33 1 39 33 12 34 charger-sales-france@fronius.com www.fronius.fr

Fronius International GmbH

Froniusplatz 1 4600 Wels Austria Telephone +43 7242 241-0 Fax: +43 7242 241-952560 perfect.charging@fronius.com www.fronius.com

s.r.o. Dolnoměcholupská

Fronius Mexico S.A. de C.V.

Carretera Monterrey-Saltillo 3279

Edifico 6, Landus Business Park

Tel. +52 81 8882 8200 Fax. +52

perfect.charging.mx@fronius.com

Santa Catarina, NL México,

66367

81 8882 8201

www.fronius.mx

1535/14 102 00 Praha 10 Česká republika Tel +420 272 111 011 Fax +420 272 738 145 charger.sales.cz@fronius.com

Fronius Italia S.r.l. Via

Italia Telefono +39 045 6763 801 Fax +39 045 6763 811 Mob. +39 3420 577 541 chargersales-it@fronius.com www.fronius.it