

Online UPS

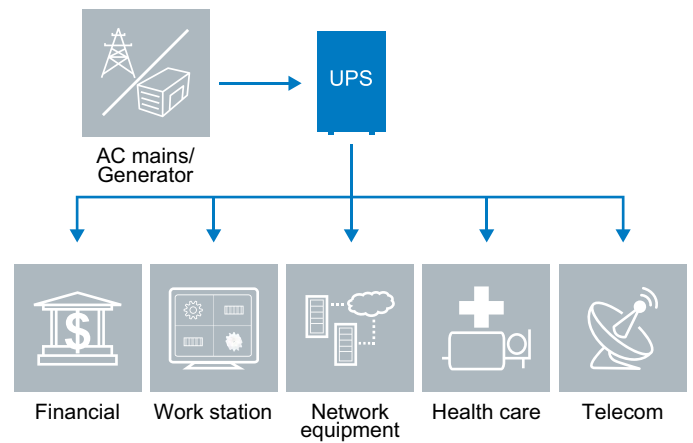
INNOVA RT



Key features

- True double-conversion design with high adaptability to harsh mains conditions
- DSP design enables precise and reliable control
- High efficiency results in energy saving
- Output power factor (0.9)
- Precise output voltage regulation
- Supports energy-saving ECO mode
- Intelligent communication slot enables remote monitoring
- Rack/tower dual set-up with rotatable LCD panel
- Output load segment control
- Dry in/out contactor
- Battery easy replacement

Typical application



PHOENIXTEC

Product specification

Model name		INNOVA RT 1K HV	INNOVA RT 1KS HV	INNOVA RT 1.5K HV	INNOVA RT 1.5KS HV
Power rating	VA/Watt	1000VA/900W	1000VA/900W	1500VA/1350W	1500VA/1350W
Efficiency	Double conversion mode	88%	88%	89%	89%
	ECO mode	95%	95%	95%	95%
Input performance	Voltage range	176-276V 100% load, 120-176V derating to 50% load linearly	176-276V 100% load, 120-176V derating to 50% load linearly	176-276V 100% load, 120-176V derating to 50% load linearly	176-276V 100% load, 120-176V derating to 50% load linearly
	Rated frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
	Frequency range	40Hz-70Hz(45Hz-55Hz 54Hz-66Hz @ load>70%)	40Hz-70Hz(45Hz-55Hz 54Hz-66Hz @ load>70%)	40Hz-70Hz(45Hz-55Hz 54Hz-66Hz @ load>70%)	40Hz-70Hz(45Hz-55Hz 54Hz-66Hz @ load>70%)
	PF	>0.99	>0.99	>0.99	>0.99
	THDI	<5%	<5%	<5%	<5%
Input connection	Wiring/socket	IEC C14	IEC C14	IEC C14	IEC C14
Output performance	Rated voltage	208/220/230/240V	208/220/230/240V	208/220/230/240V	208/220/230/240V
	Rated frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
	Maximum PF	0.9	0.9	0.9	0.9
	Voltage accuracy	±1%	±1%	±1%	±1%
	THDv	<2% linear load <5% non linear load	<2% linear load <5% non linear load	<2% linear load <5% non linear load	<2% linear load <5% non linear load
	Transfer time	0ms (4ms @ line <-> bypass; 10ms @ ECO <-> Inverter)	0ms (4ms @ line <-> bypass; 10ms @ ECO <-> Inverter)	0ms (4ms @ line <-> bypass; 10ms @ ECO <-> Inverter)	0ms (4ms @ line <-> bypass; 10ms @ ECO <-> Inverter)
	Crest Ratio	max 3:1	max 3:1	max 3:1	max 3:1
	Overload (line mode)	100%<load≤102% continuous. 102%< load ≤130% for 30 seconds 130<load≤150% for 1.5 seconds. >150% for 100ms.	100%<load≤102% continuous. 102%< load ≤130% for 30 seconds 130<load≤150% for 1.5 seconds. >150% for 100ms.	100%<load≤102% continuous. 102%< load ≤130% for 30 seconds 130<load≤150% for 1.5 seconds. >150% for 100ms.	100%<load≤102% continuous. 102%< load ≤130% for 30 seconds 130<load≤150% for 1.5 seconds. >150% for 100ms.
Output connection	Wiring/socket	1 main outlet group (with 4 x IEC C13) and 1 programmable outlet group (with 4 x IEC C13)	1 main outlet group (with 4 x IEC C13) and 1 programmable outlet group (with 4 x IEC C13)	1 main outlet group (with 4 x IEC C13) and 1 programmable outlet group (with 4 x IEC C13)	1 main outlet group (with 4 x IEC C13) and 1 programmable outlet group (with 4 x IEC C13)
	Load segment control	Yes	Yes	Yes	Yes
Battery	Voltage	36VDC	36VDC	48VDC	48VDC
	Capacity (AH)	3 x 12V/7Ah	NA	4 x 12V/7Ah	NA
	Backup time (PF=0.7, 100% load)*	5min	NA	5min	NA
Maximum connect external battery module quantity		4	4	4	4
Charger	Charging current	1.5A	6A/3A	1.5A	6A/3A
	Recharging time	3h to 90%	NA	3h to 90%	NA
Other working mode	CVCF	Yes (derating to 70% load)	Yes (derating to 70% load)	Yes (derating to 70% load)	Yes (derating to 70% load)
	Parallel	no	no	no	no

Product specification

Model name		INNOVA RT 1K HV	INNOVA RT 1KS HV	INNOVA RT 1.5K HV	INNOVA RT 1.5KS HV
HMI(human-machine interface)	Display	segment LCD, rotatable manually(optional Dot matrix LCD)	segment LCD, rotatable manually(optional Dot matrix LCD)	segment LCD, rotatable manually(optional Dot matrix LCD)	segment LCD, rotatable manually(optional Dot matrix LCD)
	USB	USB 2.0 with HID	USB 2.0 with HID	USB 2.0 with HID	USB 2.0 with HID
	RS232	Yes(DB9)	Yes(DB9)	Yes(DB9)	Yes(DB9)
	Dry in/out	1 programmable dry in; 1 programmable dry out	1 programmable dry in; 1 programmable dry out	1 programmable dry in; 1 programmable dry out	1 programmable dry in; 1 programmable dry out
	EPO	yes	yes	yes	yes
	Intelnignet slot	yes(for long card)	yes(for long card)	yes(for long card)	yes(for long card)
	Network card	Optional, NMC long card	Optional, NMC long card	Optional, NMC long card	Optional, NMC long card
	Modbus card	Optional,CMC/Modbus Long Card	Optional,CMC/Modbus Long Card	Optional,CMC/Modbus Long Card	Optional,CMC/Modbus Long Card
	Dry contactor card	Optional,AS400 Long Card	Optional,AS400 Long Card	Optional,AS400 Long Card	Optional,AS400 Long Card
	Monitor software	Winpower	Winpower	Winpower	Winpower
Physical performance	Dimension (W*D*H) MM	438*436*86.5(2U)	438*436*86.5(2U)	438*436*86.5(2U)	438*436*86.5(2U)
	Net Weight(KG)	16.2	8.4	19.7	9.3
	IP protection level	IP20	IP20	IP20	IP20
Environment	Operating temperature	0-40°C	0-40°C	0-40°C	0-40°C
	Relative Humidity	0-95%	0-95%	0-95%	0-95%
	Operating Altitude	0~3000m (the load derating 1 % every up 100m @1000~3000m)	0~3000m (the load derating 1 % every up 100m @1000~3000m)	0~3000m (the load derating 1 % every up 100m @1000~3000m)	0~3000m (the load derating 1 % every up 100m @1000~3000m)
	Acoustic Noise	<45dB @ typical load with battery fully charged	<45dB @ typical load with battery fully charged	<45dB @ typical load with battery fully charged	<45dB @ typical load with battery fully charged
Certification	certification/standard	CE,IEC/EN 62040	CE,IEC/EN 62040	CE,IEC/EN 62040	CE,IEC/EN 62040
EMI	Conduction/Radiation	C1	C1	C1	C1
EMS	ESD	IEC/EN 61000-4-2	IEC/EN 61000-4-2	IEC/EN 61000-4-2	IEC/EN 61000-4-2
	RS	IEC/EN 61000-4-3	IEC/EN 61000-4-3	IEC/EN 61000-4-3	IEC/EN 61000-4-3
	EFT	IEC/EN 61000-4-4	IEC/EN 61000-4-4	IEC/EN 61000-4-4	IEC/EN 61000-4-4
	Surge	IEC/EN 61000-4-5	IEC/EN 61000-4-5	IEC/EN 61000-4-5	IEC/EN 61000-4-5
Accessory	Maintenance bypass switch	NA	NA	NA	NA
	Input power cable	yes	yes	yes	yes
	Output power cable	yes,1*10A	yes,1*10A	yes,1*10A	yes,1*10A
	EBM cable	yes(in EBM)	yes(in EBM)	yes(in EBM)	yes(in EBM)
	USB cable	Optional	Optional	Optional	Optional
	RS232 cable	Optional	Optional	Optional	Optional
	Rail kit	Optional	Optional	Optional	Optional
	Tower Feet	yes	yes	yes	yes
	Rack ear	yes	yes	yes	yes
	Manual	yes	yes	yes	yes

Product specification

Model name		INNOVA RT 2K HV	INNOVA RT 2KS HV	INNOVA RT 3K HV	INNOVA RT 3KS HV
Power rating	VA/Watt	2000VA/1800W	2000VA/1800W	3000VA/2700W	3000VA/2700W
Efficiency	Double conversion mode	92%	92%	92%	92%
	ECO mode	95%	95%	95%	95%
Input performance	Voltage range	176-276V 100% load, 120-176V derating to 50% load linearly	176-276V 100% load, 120-176V derating to 50% load linearly	176-276V 100% load, 120-176V derating to 50% load linearly	176-276V 100% load, 120-176V derating to 50% load linearly
	Rated frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
	Frequency range	40Hz-70Hz(45Hz-55Hz 54Hz-66Hz @ load>70%)	40Hz-70Hz(45Hz-55Hz 54Hz-66Hz @ load>70%)	40Hz-70Hz(45Hz-55Hz 54Hz-66Hz @ load>70%)	40Hz-70Hz(45Hz-55Hz 54Hz-66Hz @ load>70%)
	PF	>0.99	>0.99	>0.99	>0.99
	THDI	<5%	<5%	<5%	<5%
Input connection	Wiring/socket	IEC C14	IEC C20	IEC C20	L/N/PE hardware terminal connection
Output performance	Rated voltage	208/220/230/240V	208/220/230/240V	208/220/230/240V	208/220/230/240V
	Rated frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
	Maximum PF	0.9	0.9	0.9	0.9
	Voltage accuracy	±1%	±1%	±1%	±1%
	THDv	<2% linear load <5% non linear load	<2% linear load <5% non linear load	<2% linear load <5% non linear load	<2% linear load <5% non linear load
	Transfer time	0ms(4ms @ line <-> bypass;10ms @ ECO <-> Inverter)	0ms(4ms @ line <-> bypass;10ms @ ECO <-> Inverter)	0ms(4ms @ line <-> bypass;10ms @ ECO <-> Inverter)	0ms(4ms @ line <-> bypass;10ms @ ECO <-> Inverter)
	Crest Ratio	max 3:1	max 3:1	max 3:1	max 3:1
	Overload (line mode)	100%<load≤102% continuous. 102%< load ≤130% for 30 seconds 130<load≤150% for 1.5 seconds. >150% for 100ms.	100%<load≤102% continuous. 102%< load ≤130% for 30 seconds 130<load≤150% for 1.5 seconds. >150% for 100ms.	100%<load≤102% continuous. 102%< load ≤130% for 30 seconds 130<load≤150% for 1.5 seconds. >150% for 100ms.	100%<load≤102% continuous. 102%< load ≤130% for 30 seconds 130<load≤150% for 1.5 seconds. >150% for 100ms.
Output connection	Wiring/socket	1 main outlet group (with 4 x IEC C13) and 1 programmable outlet group (with 4 x IEC C13)	1 main outlet group (with 4 x IEC C13) and 1 programmable outlet group (with 4 x IEC C13)	1 main outlet group (with 1 x IEC C19 + 4 x IEC C13) and 1 programmable outlet group (with 4 x IEC C13)	1 main outlet group (with 1 x IEC C19 + 4 x IEC C13) and 1 programmable outlet group (with 4 x IEC C13)
	Load segment control	Yes	Yes	Yes	Yes
Battery	Voltage	48VDC	48VDC	72VDC	72VDC
	Capacity (AH)	4 x 12V/9Ah	NA	6 x 12V/9Ah	NA
	Backup time (PF=0.7, 100% load)*	5min	NA	5min	NA
Maximum connect external battery module quantity		4	4	4	4
Charger	Charging current	1.5A	6A/3A	1.5A	6A/3A
	Recharging time	3h to 90%	NA	3h to 90%	NA
Other working mode	CVCF	Yes (derating to 70% load)	Yes (derating to 70% load)	Yes (derating to 70% load)	Yes (derating to 70% load)
	Parallel	no	no	no	no

Product specification

Model name		INNOVA RT 2K HV	INNOVA RT 2KS HV	INNOVA RT 3K HV	INNOVA RT 3KS HV
HMI(human-machine interface)	Display	segment LCD, rotatable manually (optional Dot matrix LCD)	segment LCD, rotatable manually (optional Dot matrix LCD)	segment LCD, rotatable manually (optional Dot matrix LCD)	segment LCD, rotatable manually (optional Dot matrix LCD)
	USB	USB 2.0 with HID	USB 2.0 with HID	USB 2.0 with HID	USB 2.0 with HID
	RS232	Yes(DB9)	Yes(DB9)	Yes(DB9)	Yes(DB9)
	Dry in/out	1 programmable dry in; 1 programmable dry out	1 programmable dry in; 1 programmable dry out	1 programmable dry in; 1 programmable dry out	1 programmable dry in; 1 programmable dry out
	EPO	yes	yes	yes	yes
	Intellignet slot	yes(for long card)	yes(for long card)	yes(for long card)	yes(for long card)
	Network card	Optional, NMC long card	Optional, NMC long card	Optional, NMC long card	Optional, NMC long card
	Modbus card	Optional,CMC/Modbus Long Card	Optional,CMC/Modbus Long Card	Optional,CMC/Modbus Long Card	Optional,CMC/Modbus Long Card
	Dry contactor card	Optional,AS400 Long Card	Optional,AS400 Long Card	Optional,AS400 Long Card	Optional,AS400 Long Card
	Monitor software	Winpower	Winpower	Winpower	Winpower
Physical performance	Dimension(W*D*H)MM	438*436*86.5 (2U)	438*436*86.5 (2U)	438*608*86.5 (2U)	438*608*86.5 (2U)
	Net Weight(KG)	19.7	9.3	27.8	13
	IP protection level	IP20	IP20	IP20	IP20
Environment	Operating temperature	0-40°C	0-40°C	0-40°C	0-40°C
	Relative Humidity	0-95%	0-95%	0-95%	0-95%
	Operating Altitude	0~3000m (the load derating 1 % every up 100m @1000~3000m)	0~3000m (the load derating 1 % every up 100m @1000~3000m)	0~3000m (the load derating 1 % every up 100m @1000~3000m)	0~3000m (the load derating 1 % every up 100m @1000~3000m)
	Acoustic Noise	<50dB @ typical load with battery fully charged	<50dB @ typical load with battery fully charged	<50dB @ typical load with battery fully charged	<50dB @ typical load with battery fully charged
Certification	certification/standard	CE,IEC/EN 62040	CE,IEC/EN 62040	CE,IEC/EN 62040	CE,IEC/EN 62040
EMI	Conduction/Radiation	C1	C1	C1	C1
EMS	ESD	IEC/EN 61000-4-2	IEC/EN 61000-4-2	IEC/EN 61000-4-2	IEC/EN 61000-4-2
	RS	IEC/EN 61000-4-3	IEC/EN 61000-4-3	IEC/EN 61000-4-3	IEC/EN 61000-4-3
	EFT	IEC/EN 61000-4-4	IEC/EN 61000-4-4	IEC/EN 61000-4-4	IEC/EN 61000-4-4
	Surge	IEC/EN 61000-4-5	IEC/EN 61000-4-5	IEC/EN 61000-4-5	IEC/EN 61000-4-5
Accessory	Maintenance bypass switch	NA	NA	NA	NA
	Input power cable	yes	yes	yes	yes
	Output power cable	yes,1*10A	yes,1*10A	yes,1*10A	yes,1*10A
	EBM cable	yes(in EBM)	yes(in EBM)	yes(in EBM)	yes(in EBM)
	USB cable	Optional	Optional	Optional	Optional
	RS232 cable	Optional	Optional	Optional	Optional
	Rail kit	Optional	Optional	Optional	Optional
	Tower Feet	yes	yes	yes	yes
	Rack ear	yes	yes	yes	yes
	Manual	yes	yes	yes	yes

Product specification

Model name		INNOVA 6K RT	INNOVA RT 6KS	INNOVA 10K RT	INNOVA RT 10KS
Power rating	VA/Watt	6000VA/5400W	6000VA/5400W	10000VA/9000W	10000VA/9000W
Efficiency	Double conversion mode	92%	92%	93%	93%
	ECO mode	96%	96%	97%	97%
Input performance	Voltage range	176-276V 100% load, 120-176V derating to 50% load linearly	176-276V 100% load, 120-176V derating to 50% load linearly	176-276V 100% load, 120-176V derating to 50% load linearly	176-276V 100% load, 120-176V derating to 50% load linearly
	Rated frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
	Frequency range	40Hz-70Hz(45Hz-55Hz 54Hz-66Hz @ load>80%)	40Hz-70Hz(45Hz-55Hz 54Hz-66Hz @ load>80%)	40Hz-70Hz(45Hz-55Hz 54Hz-66Hz @ load>80%)	40Hz-70Hz(45Hz-55Hz 54Hz-66Hz @ load>80%)
	PF	>0.99	>0.99	>0.99	>0.99
	THDI	<5%	<5%	<5%	<5%
Input connection	Wiring/socket	L/N/PE hardware terminnal connection	L/N/PE hardware terminnal connection	L/N/PE hardware terminnal connection	L/N/PE hardware terminnal connection
Output performance	Rated voltage	208/220/230/240V	208/220/230/240V	208/220/230/240V	208/220/230/240V
	Rated frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
	Maximum PF	0.9	0.9	0.9	0.9
	Voltage accuracy	±1%	±1%	±1%	±1%
	THDv	<2% linear load <5% non linear load	<2% linear load <5% non linear load	<2% linear load <5% non linear load	<2% linear load <5% non linear load
	Transfer time	0ms(10ms @ ECO->Inverter)	0ms(10ms @ ECO->Inverter)	0ms(10ms @ ECO->Inverter)	0ms(10ms @ ECO->Inverter)
	Crest Ratio	max 3:1	max 3:1	max 3:1	max 3:1
	Overload (line mode)	100%<load≤102% continuous. 102%< load ≤130% for 2 minutes 130<load≤150% for 30 seconds. >150% for 100ms.	100%<load≤102% continuous. 102%< load ≤130% for 2 minutes 130<load≤150% for 30 seconds. >150% for 100ms.	100%<load≤102% continuous. 102%< load ≤130% for 2 minutes 130<load≤150% for 30 seconds. >150% for 100ms.	100%<load≤102% continuous. 102%< load ≤130% for 2 minutes 130<load≤150% for 30 seconds. >150% for 100ms.
Output connection	Wiring/socket	L/N/PE hardware terminnal and 2 x IEC C19 + 4 x IEC C13	L/N/PE hardware terminnal and 2 x IEC C19 + 4 x IEC C13	L/N/PE hardware terminnal and 8 x IEC C19	L/N/PE hardware terminnal and 8 x IEC C19
	Load segment control	No	No	No	No
Battery	Voltage	180VDC	180VDC	240VDC	240VDC
	Capacity (AH)	15*12V/5Ah	NA	20*12V/9Ah	NA
	Backup time (PF=0.7, 100% load)*	5min	NA	5.5min	NA
Maximum connect external battery module quantity		6	6	6	6
Charger	Charging current	1A	8A	1.7A	8A
	Recharging time	3h to 90%	NA	3h to 90%	NA
Other working mode	CVCF	Yes (derating to 80% load)	Yes (derating to 80% load)	Yes (derating to 80% load)	Yes (derating to 80% load)
	Parallel	Yes,2 parallel	Yes,2 parallel	Yes,2 parallel	Yes,2 parallel

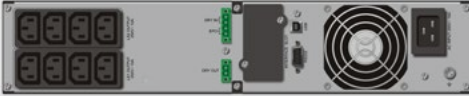
Product specification

Model name		INNOVA 6K RT	INNOVA RT 6KS	INNOVA 10K RT	INNOVA RT 10KS
HMI(human-machine interface)	Display	Dot matrix LCD, rotatable manually	Dot matrix LCD, rotatable manually	Dot matrix LCD, rotatable manually	Dot matrix LCD, rotatable manually
	USB	USB 1.1	USB 1.1	USB 1.1	USB 1.1
	RS232	Yes(DB9)	Yes(DB9)	Yes(DB9)	Yes(DB9)
	Dry in/out	no programble,build in DB9	no programble,build in DB9	no programble,build in DB9	no programble,build in DB9
	EPO	yes	yes	yes	yes
	Intelignet slot	yes(for long card)	yes(for long card)	yes(for long card)	yes(for long card)
	Network card	Optional, NMC long card	Optional, NMC long card	Optional, NMC long card	Optional, NMC long card
	Modbus card	Optional,CMC/Modbus Long Card	Optional,CMC/Modbus Long Card	Optional,CMC/Modbus Long Card	Optional,CMC/Modbus Long Card
	Dry contactor card	Optional,AS400 Long Card	Optional,AS400 Long Card	Optional,AS400 Long Card	Optional,AS400 Long Card
	Monitor software	Winpower	Winpower	Winpower	Winpower
Physical performance	Dimension(W*D*H)MM	438*698*129 (3U)	438*698*129 (3U)	438*704*215.5 (5U)	438*704*215.5 (5U)
	Net Weight(KG)	46	19	82.5	26
	IP protection level	IP20	IP20	IP20	IP20
Environment	Operating temperature	0-40°C	0-40°C	0-40°C	0-40°C
	Relative Humidity	0-95%	0-95%	0-95%	0-95%
	Operating Altitude	0~3000m (the load derating 1 % every up 100m @1000~3000m)	0~3000m (the load derating 1 % every up 100m @1000~3000m)	0~3000m (the load derating 1 % every up 100m @1000~3000m)	0~3000m (the load derating 1 % every up 100m @1000~3000m)
	Acoustic Noise	<55dB @ typical load with battery fully charged	<55dB @ typical load with battery fully charged	<55dB @ typical load with battery fully charged	<55dB @ typical load with battery fully charged
Certification	certification/standard	CE,IEC/EN 62040	CE,IEC/EN 62040	CE,IEC/EN 62040	CE,IEC/EN 62040
EMI	Conduction/Radiation				
EMS	ESD	IEC/EN 61000-4-2	IEC/EN 61000-4-2	IEC/EN 61000-4-2	IEC/EN 61000-4-2
	RS	IEC/EN 61000-4-3	IEC/EN 61000-4-3	IEC/EN 61000-4-3	IEC/EN 61000-4-3
	EFT	IEC/EN 61000-4-4	IEC/EN 61000-4-4	IEC/EN 61000-4-4	IEC/EN 61000-4-4
	Surge	IEC/EN 61000-4-5	IEC/EN 61000-4-5	IEC/EN 61000-4-5	IEC/EN 61000-4-5
Accessory	Maintenance bypass switch	Standard offer	Standard offer	Standard offer	Standard offer
	Input power cable	NA	NA	NA	NA
	Output power cable	NA	NA	NA	NA
	EBM cable	yes(in EBM)	yes(in EBM)	yes(in EBM)	yes(in EBM)
	USB cable	Yes	Yes	Yes	Yes
	RS232 cable	Optional	Optional	Optional	Optional
	Rail kit	Optional	Optional	Optional	Optional
	Tower Feet	Yes	Yes	Yes	Yes
	Rack ear	Yes	Yes	Yes	Yes
	Manual	Yes	Yes	Yes	Yes

Product rear panel



INNOVA RT 1-2K HV rear



INNOVA RT 2KS HV rear



INNOVA RT 3K HV rear



INNOVA RT 3KS HV rear



INNOVA 6K RT rear



INNOVA 10K RT rear

PHOENIXTEC

ADDRESS: No. 114, Sec. 2, Xiwan Rd.,
Xizhi District, New Taipei City 22179, Taiwan

TEL: +886 2 6614 2000

FAX: +886 2 6614 2099

PHOENIXTEC