Kempact RA

Switch on the new standard

New standards
in compact MIG/MAG class

Designed for the modern welding workshop, Kempact RA expresses stylish and purposeful design through high build quality and functional user benefits, making weld tasks productive, accurate and efficient.

Kempact RA is built on Kemppi's latest power source platform, ensuring optimal welding performance and excellent power cost efficiency. Eleven model options include 180, 250 and 320 ampere power sources, including a choice of either Regular (R) or Adaptive (A) control panel interface, which serve the wide ranging needs of metal fabrication workshops. Delivery specification includes welding gun and earth return lead pack.

New technology features include reduced energy costs of more than 10 % when compared to conventional step controlled power sources, Brights™ cabinet lighting for easy wire loading in low light conditions, WireLine™ service alert function that signals routine wire-path maintenance needs, plus the integrated GasMate™ chassis design, making gas cylinder loading and machine movement easy and safe. Whichever model you select, Kempact RA ensures you get the most from every welding task.

Why buy:

- Modern, energy efficient power source
- Excellent welding performance with mixed or $C0_2$ shielding gas
- Precise, clean arc ignition
- Maximum output at 35 % duty cycle
- Large, clear LCD display
- WireLine™ service indicator
- GasMate™ chassis design featuring floor level cylinder loading
- Brights™ cabinet lighting
- HotSpot™ heat treatment function
- 2T/4T gun switch latching
- Spot and cycle arc timer
- Parts storage trays
- 3.5 m FE welding gun
- Kemppi 2+ warranty

Energy efficient

Industrial design for user benefit

Design features:

1. Tough Plexiglas cover and lens plate provide added protection and style.
2. Choose either Regular (R models) or Adaptive (A models) control panel interface.
3. 2-roll (181 and 251 models) or 4-roll (253 and 323 models) wire drive systems.
4. Inverted gun connection improves wire feeding and gun life.
5. Brights™ wire cabinet lighting for low light conditions.
6. WireLine™ service symbol alerts drive system maintenance needs.

iF product design award 2012

7. Integrated storage trays for wire drive and gun parts.
8. GasMate™ chassis design makes cylinder loading and machine movement easy and safe.
9. Strong pressed steel and moulded plastic construction.
10. Easy change welding polarity terminals.
11. Particle filter option for dusty fabrication shops.

Model choice to match your needs

Kempact RA is designed with one thing in mind – its user. From the convenient waist height LCD control panel and easy parameter control, to the innovative chassis design, parts trays and LED cabinet lighting, Kempact RA delivers a rewarding welding experience.

Regular (R) models provide manual setup function for voltage and wirefeed speed and incorporate a wide range of standard features including, GAS type selection, 2T/4T gun latching mode, SPOT/CYCLE arc timer and HOT SPOT function, a specialist localised heat treatment function for professional thin sheet fabricators and automotive repair engineers.

Adaptive (A) models combine all standard features, plus Channel memory function and Adaptive mode set-up, where welding power is automatically set according to welding plate thickness selection.

Kempact R control panel interface

Kempact A control panel interface

Technical specifications

Kempact		181A		251R, 251A
Connection voltage	1~, 50/60 Hz	230 V (±15 %)	1~, 50/60 Hz	240 V (±15 %)
Rated power at max. current	50 % ED I_{1max} (180 A)	5 kVA	30 % ED I_{1max} (250A)	8.5 kVA
Supply current	50 % ED I_{1max} (180 A)	22 A	30 % ED I_{1max} (250A)	36 A
	100 % ED I_{1eff} (140 A)	16 A	100 % ED I_{1eff} (150A)	17 A
Welding range		10 V / 20 A – 26 V / 180 A		10 V / 20 A – 29 V / 250 A
Power factor at max.	180 A / 23 V	0.99	250 A / 26.5 V	0.99
Efficiency at 100% ED	140 A / 21 V	0.82	150 A / 21.5 V	0.82
Wire feed speed adjustment range		1.0 – 14.0 m/min		1.0 – 18.0 m/min
Voltage adjustment range		8.0 – 26.0 V		8.0 – 29.0 V
External dimensions	L x W x H	623 x 579 x 1070 mm	L x W x H	623 x 579 x 1070 mm
Weight (without gun and cables)		44 kg		44 kg
EMC class		A		A
Standards: IEC 60974-1, IEC 60974-5, IEC 60974-10, IEC 61000-3-12				

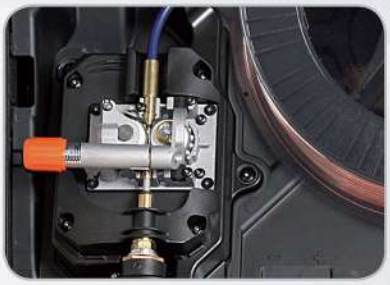
Kempact		253R, 253A		323R, 323A
Connection voltage	3~, 50/60 Hz	400 V (±15 %)	3~, 50/60 Hz	400 V (±15 %)
Rated power at max. current	40 % ED I_{1max} (250 A)	8.5 kVA	35 % ED I_{1max} (320 A)	12 kVA
Supply current	40 % ED I_{1max} (250 A)	11.9 A	35 % ED I_{1max} (320 A)	17.2 A
	100 % ED I_{1eff} (150 A)	6.1 A	100 % ED I_{1eff} (190 A)	8.2 A
Welding range		10 V / 20 A – 31 V / 250 A		10 V / 20 A – 32.5 V / 320 A
Power factor at max.	250 A / 26.5 V	0.93	320A/30V	0.94
Efficiency at 100% ED	150 A / 21.5 V	0.88	190A/23.5V	0.86
Wire feed speed adjustment range		1.0 – 18.0 m/min		1.0 – 20.0 m/min
Voltage adjustment range		8.0 – 31.0 V		8.0 – 32.5 V
External dimensions	L x W x H	623 x 579 x 1070 mm	L x W x H	623 x 579 x 1070 mm
Weight (without gun and cables)		44 kg		44 kg
EMC class		A		A
Standards: IEC 60974-1, IEC 60974-5, IEC 60974-10				

Kempact		253 RMV/AMV		323 RMV/AMV
Connection voltage	50/60 Hz	230 V -15%…400 V +15%	50/60 Hz	230 V -15%…400 V +15%
Rated power at max. current	40 % ED I_{1max} (250A)(230V)	9 kVA	35 % ED I_{1max} (320A)(230V)	13.5 kVA
	40 % ED I_{1max} (250A)(400V)	8.5 kVA	35 % ED I_{1max} (320A)(400V)	12.5 kVA
Supply current	40 % ED I_{1max} (250A)(230V)	22.2 A	35 % ED I_{1max} (320A)(230V)	33.3 A
	40 % ED I_{1max} (250A)(400V)	12.3 A	35 % ED I_{1max} (320A)(400V)	17.8 A
	100 % ED I_{1eff} (150A)(230V)	10.8 A	100 % ED I_{1eff} (190A)(230V)	14.8 A
	100 % ED I_{1eff} (150A)(400V)	6.2 A	100 % ED I_{1eff} (190A)(400V)	8.3 A
Welding range	10 V / 20 A – 31 V / 250 A		10 V / 20 A – 32.5 V / 320 A	
Power factor at max.	250 A / 26.5 V (230 V)	0.94	320 A / 30 V (230 V)	0.94
	250 A / 26.5 V (400 V)	0.93	320 A / 30 V (400 V)	0.94
Efficiency at 100% ED	150 A / 21.5 V (230 V)	0.79	190 A / 23.5 V (230 V)	0.80
	150 A / 21.5 V (400 V)	0.82	190 A / 23.5 V (400 V)	0.83
Wire feed speed adjustment range	1.0 – 18.0 m/min		1.0 – 20.0 m/min	
Voltage adjustment range	8.0 – 31.0 V		8.0 – 32.5 V	
External dimensions	L x W x H	623 x 579 x 1070 mm	L x W x H	623 x 579 x 1070 mm
Weight (without gun and cables)		44 kg		44 kg
EMC class		A		A
Standards: IEC 60974-1, IEC 60974-5, IEC 60974-10				

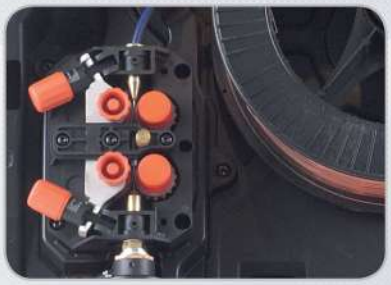
HotSpot™ feature is ideal for vehicle repair and thin sheet fabrication environments, making metal shrinking and component heating simple and convenient.

The large and clear LCD control panels make parameter setting and reference easy. Parts trays provide convenient storage and access.

GasMate chassis design makes gas cylinder collection, storage and movement easy. Gas cylinders are floor level loaded and secured with a strong fabric webbing system.



Kempact 181/251 models include the GT02, two roll wire drive unit.



Kempact 253/323 models include the DuraTorque four roll wire drive unit.

Kempact Adaptive (A) models include special features, including power setting by plate thickness control, filler materials selection and memory channels.

Ordering information:

Kempact RA	Order code
Kempact 181A, FE20 3.5m	P2201
Kempact 181A, FE20 5m	P2202
Kempact 251R, FE25 3.5m	P2203
Kempact 251R, FE25 5m	P2204
Kempact 251A, FE25 3.5m	P2205
Kempact 251A, FE25 5m	P2206
Kempact 253R, FE27 3.5m	P2207
Kempact 253R, FE27 5m	P2208
Kempact 253A, FE32 3.5m	P2209
Kempact 253A, FE32 5m	P2210
Kempact 323R, FE32 3.5m	P2211
Kempact 323R, FE32 5m	P2212
Kempact 323A, FE32 3.5m	P2213
Kempact 323A, FE32 5m	P2214
Kempact 253RMV, FE27 3.5m	P2215
Kempact 253RMV, FE27 5m	P2216
Kempact 253AMV, FE32 3.5m	P2217
Kempact253AMV, FE32 5m	P2218
Kempact 323RMV, FE32 3.5m	P2219
Kempact 323RMV, FE32 5m	P2220
Kempact 323AMV, FE32 3.5m	P2221
Kempact 323AMV, FE32 5m	P2222

Kemppi Oy

PO Box 13, 15801 Lahti, Finland,
Tel. +358 3 899 11, Fax +358 3 899 428,
info@kemppi.com, www.kemppi.com

Kemppi (U.K) Ltd.

Martti Kemppi Building, Fraser Road, Priory Business Park, Bedford MK44 3WH, United Kingdom,
Tel. +448456444201, Fax +448456444202,
sales.uk@kemppi.com, www.kemppi.co.uk

Kemppi Australia Pty Ltd

13 Cullen Place, Smithfield NSW 2164, Australia,
Tel. + 61 2 9605 9500, Fax + 61 2 9605 5999,
info.au@kemppi.com

KEMPPI