

# Kempact RA

Switch on the new standard





**Why buy:**

- Modern, energy efficient power source
- Excellent welding performance with mixed or CO<sub>2</sub> 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



# 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.



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.

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 <sub>lmax</sub> (180 A)  | 5 kVA                      | 30 % ED I <sub>lmax</sub> (250A)  | 8.5 kVA                    |
| Supply current  | 50 % ED I <sub>lmax</sub> (180 A)  | 22 A                       | 30 % ED I <sub>lmax</sub> (250A)  | 36 A                       |
|   | 100 % ED I <sub>leff</sub> (140 A) | 16 A                       | 100 % ED I <sub>leff</sub> (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 <sub>lmax</sub> (250 A)  | 8.5 kVA                    | 35 % ED I <sub>lmax</sub> (320 A)  | 12 kVA                       |
| Supply current                                    | 40 % ED I <sub>lmax</sub> (250 A)  | 11.9 A                     | 35 % ED I <sub>lmax</sub> (320 A)  | 17.2 A                       |
|   | 100 % ED I <sub>leff</sub> (150 A) | 6.1 A                      | 100 % ED I <sub>leff</sub> (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 <sub>lmax</sub> (250A)(230V)  | 9 kVA                      | 35 % ED I <sub>lmax</sub> (320A)(230V)  | 13.5 kVA                     |
|   | 40 % ED I <sub>lmax</sub> (250A)(400V)  | 8.5 kVA                    | 35 % ED I <sub>lmax</sub> (320A)(400V)  | 12.5 kVA                     |
| Supply current                                    | 40 % ED I <sub>lmax</sub> (250A)(230V)  | 22.2 A                     | 35 % ED I <sub>lmax</sub> (320A)(230V)  | 33.3 A                       |
|   | 40 % ED I <sub>lmax</sub> (250A)(400V)  | 12.3 A                     | 35 % ED I <sub>lmax</sub> (320A)(400V)  | 17.8 A                       |
|   | 100 % ED I <sub>leff</sub> (150A)(230V) | 10.8 A                     | 100 % ED I <sub>leff</sub> (190A)(230V) | 14.8 A                       |
|   | 100 % ED I <sub>leff</sub> (150A)(400V) | 6.2 A                      | 100 % ED I <sub>leff</sub> (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.



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



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



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 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      |

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