

## Minarc™ family Order Information

### ■ Minarc

<b>Minarc 150</b> incl. 3m earth and welding cable 16mm <sup>2</sup> , 3.3m connection cable with Schuko	<b>6102150</b>
<b>Minarc 151</b> incl. 3m earth and welding cable 16mm <sup>2</sup> , 2m connection cable	<b>6101151</b>
<b>Minarc 150 VRD, Australia</b> incl. 3m earth and welding cable 16mm <sup>2</sup> , 3.3m connection cable with 15A AU-plug	<b>6102150AU</b>
<b>Minarc 150 VRD, Europe</b> incl. 3m earth and welding cable 16mm <sup>2</sup> , 3.3m connection cable with Schuko	<b>6102150VRD</b>
<b>Minarc 220</b> incl. 5m earth and welding cable, 5m connection cable	<b>6102220</b>
<b>Minarc 220 VRD</b> incl. 5m earth and welding cable, 5m connection cable	<b>6102220VRD</b>

### ■ MinarcMig

<b>MinarcMig Adaptive 170</b> incl. MIG-gun MMG 20, cables, gas hose and shoulder strap	<b>6108170</b>
<b>MinarcMig Adaptive 180</b> incl. MIG-gun MMG 20, cables, gas hose and shoulder strap	<b>6108180</b>

### ■ MinarcTig 180/250

<b>MinarcTig 180</b> (incl. TIG torch, earth cable and shoulder strap) with TTC 160 4m	<b>P0601</b>
with TTC 160 8m	<b>P0602</b>
<b>MinarcTig 250</b> (incl. TIG torch, earth cable and shoulder strap) with TTC 160 4m	<b>P0607</b>
with TTC 160 8m	<b>P0608</b>
with TTC 220 4m	<b>P0609</b>
with TTC 220 8m	<b>P0610</b>

### ■ MinarcTig 180 MLP / 250 MLP

<b>MinarcTig 180 MLP</b> (incl. TIG torch, earth cable and shoulder strap) with TTC 130 4m	<b>P0619</b>
with TTC 130 8m	<b>P0620</b>
with TTC 160 4m	<b>P0603</b>
with TTC 160 8m	<b>P0604</b>
<b>MinarcTig 250 MLP</b> (incl. TIG torch, earth cable and shoulder strap) with TTC 130 4m	<b>MINARC250MLPTTC13F4</b>
with TTC 130 8m	<b>MINARC250MLPTTC13F8</b>
with TTC 160 4m	<b>P0611</b>
with TTC 160 8m	<b>P0612</b>
with TTC 220 4m	<b>P0613</b>
with TTC 220 8m	<b>P0614</b>

## Minarc™ family Technical Data

■ Minarc	150/151	220
Mains voltage	1~ 230 V (110 V for 151)	3~ 400 V
Load capacity (A)	35% ED 140 (MMA) 150 (TIG) 100% ED 100 (MMA) 110 (TIG)	220 (MMA) 220 (TIG) 150 (MMA) 160 (TIG)
Open circuit voltage (V)	85	85 (MMA) 60 (TIG)
Power factor at max. current	0.6 (MMA) 0.6 (TIG)	0.91 (MMA) 0.92 (TIG)
MMA electrodes ø (mm)	1.5...3.25	1.5...5.0
External dimensions (mm)	L x W x H 320 x 123 x 265	400 x 180 x 340
Weight (without connection cable)	4.0/4.4 kg	9.2 kg

■ MinarcMig	Adaptive 170	Adaptive 180
Mains voltage	1~ 230 V 50/60 Hz	1~ 230 V 50/60 Hz
Load capacity (A)	170 A/21.5 V 25% 60% ED 120 100% ED 100	180 A/23.0 V 25% 120 100
Open circuit voltage (V)	22-33	15.5-42.5
Power factor at max. current	0.60	0.60
Wire feed speed (m/min)	1...12	1...12
Spool, max. ø (mm)	200	200
Filler wires ø (mm)	0.6...1.0 (Fe, Fe FCW)	0.6...1.0 (Fe, Fe FCW, Ss, Al)
External dimensions (mm)	L x W x H 400 x 180 x 340	400 x 180 x 340
Weight (incl. gun and cables)	9.8 kg	9.8 kg

■ MinarcTig	180, 180 MLP
Mains voltage	1~ 230 V
Load capacity (A)	35% ED 140 (MMA) 180 (TIG) 100% ED 100 (MMA) 120 (TIG)
Open circuit voltage (V)	95
Power factor at max. current	0.63 (MMA) 0.62 (TIG)
MMA electrodes ø (mm)	1.5...3.25
External dimensions (mm)	L x W x H 400 x 180 x 340
Weight (without connection cable)	7.8 kg

■ MinarcTig	250, 250 MLP
Mains voltage	3~ 400 V
Load capacity (A)	35% ED 220 (MMA) 250 (TIG, 30%) 100% ED 150 (MMA) 160 (TIG)
Open circuit voltage (V)	95
Power factor at max. current	0.91 (MMA) 0.92 (TIG)
MMA electrodes ø (mm)	1.5...5.0
External dimensions (mm)	L x W x H 400 x 180 x 340
Weight (without connection cable)	10.7 kg

See [www.kemppi.com](http://www.kemppi.com) for detailed technical specifications.



The Joy of Welding  
Around the World



[www.kemppi.com](http://www.kemppi.com)

# Minarc™ Family

## Family of welding experts



150/151, 220, Adaptive 170,  
Adaptive 180, 180/180 MLP, 250/250 MLP

**KEMPPi**  
The Joy of Welding

**KEMPPi**

AD211EN  
0940

## Small in size, heavy in power



- +** World-famous welding expertise
  - Excellent welding performance
  - Stable arc even in difficult conditions
  - Versatile and easy-to-use functions
  - Plenty of welding power in a small package
  - Everything you need for quality welds in MMA, MIG/MAG and TIG

■ **All Minarc products** are unique combinations of small size, high welding power and good welding intelligence. They are a family of true experts in MMA, TIG, and MIG/MAG welding.

Ever since the first Minarc was launched in 2001, this class of small but powerful Kemppi welding machines has had an ever-growing popularity in the welding industry and among the welding people around the world.

There are three groups of products in the Minarc family: MIG/MAG, TIG, and MMA products. All product groups include several models for different welding needs.

All Minarc products are durable in structure and light in weight. They are easy to pick up and carry

to the place where a quality weld is needed. They suit for both indoor and outdoor use in many different applications. With Minarc machines you can truly weld anywhere.

The good tolerance of input voltage fluctuations makes the Minarc machines ideal for field conditions with long cables or supply generators. Though small in size and light in weight, the Minarc products are full of welding power. Also their versatile welding functions and adaptive control capabilities make them very easy to use. Welding has never been so easy!

A Minarc product is an ideal choice for both professional and semi-professional use.

## Little giants of MMA welding



- +** Minarc™ at a glance
  - Light in weight, heavy in performance
  - Arc survives even in hard conditions
  - Automatic ignition time, ignition pulse and arc dynamics
  - Easy operation with optional remote control devices in 220 model
  - Easy TIG arc ignition with the TouchArc feature in 220 model
  - Ready to weld package: Just buy the electrodes and start welding

■ **The superior arc performance** of Minarc 150 is well-known among the welding people. The arc stability is based on a large voltage reserve and the automatic arc force control.

Those are the main factors that make Minarc's welding arc survive in all positions, regardless of the welding current or the MMA electrode. Also, the good tolerance of input voltage fluctuations gives further reliability to Minarc's good arc performance, even when using extra-long cables up to 50 m.

The great arc performance is present also in the more powerful model, Minarc 220. It is equipped with all the good features of Minarc 150, but its power capabilities have grown considerably. With a

duty cycle of 100% it can deliver up to 150 A in MMA and 160 A in TIG. The antifreeze feature makes welding more fluent by reducing significantly the risk of the electrode sticking to the base material.

Minarc MMA machines can also be used for effective and safe TIG welding with either the scratch-TIG function or the TTC 220 GV torch in Minarc 220. With the TouchArc™ feature you can light the TIG arc easily with just a gentle touch on the work piece.

Remote control is possible with either the R10 remote control unit or the RTC10 torch control unit.

## Awarded MIG/MAG welding properties



- +** MinarcMig™ at a glance
  - World-famous design and usability
  - Adaptive control of parameters
  - Easy operation: Just select the plate thickness and pull the trigger
  - Single phase 230 V mains connection
  - Ready to weld package includes all you need
  - Two power classes:
    - 170 A for Fe, Fe FCW
    - 180 A for Fe, Fe FCW, Ss, Al

■ **In its revolutionary ease of use**, Minarc-Mig is ideal for both professional and semi-professional use. It is a small and lightweight MIG machine with a handy slot for cable wraparound. These features make this little welding giant easy to pick up and carry to the work place.

MinarcMig machines have an adaptive control capability, which makes it easier than ever for you to find the right welding parameters. You just use the control knob to select the base material thickness, and the MinarcMig adjusts everything else.

There are two amperage classes available: the 170 amp and the 180 amp model. The MinarcMig 170 Adaptive is a heavy-duty steel specialist. With a duty cycle of 25%, it can deliver up to 170 amperes of welding current. With this kind of power-to-

weight ratio, it is truly a top-of-class unit that's certainly out of the ordinary.

The big brother, MinarcMig 180 Adaptive, has created a totally new dimension in compact MIG machines for aluminium, stainless steel, and iron filler wires.

The large LCD panel shows clearly all the welding information you need - the amperage, voltage, and wire feed speed selected, as well as the material and gas combination.

This machine represents new impressiveness and usability rarely seen in welding machines. Its innovativeness, compact functionality and ergonomical design were awarded the Red Dot award – one of the most prestigious industrial design awards in the world.

## All you need for TIG and MMA



- +** MinarcTig™ at a glance
  - Light in weight, versatile in operation
  - High voltage reserve allows smooth and easy welding in both TIG and MMA
  - All the necessary TIG features are included
  - Minilog and pulse functions give productivity and convenience to your welding
  - Compatible with all Kemppi's remote controllers
  - Ready to weld package

■ **The MinarcTig products offer a unique combination** for completing various welding tasks. TIG can be used for demanding tasks with great accuracy, while MMA increases the versatility of this machine.

The dual-process TIG/MMA machine expands the field of application greatly – from thick to thin, alloyed to unalloyed, indoor to outdoor. It is suitable for running both demanding root passes and filler passes requiring high productivity.

Fast and user-friendly operation provides a machine that guarantees high productivity in welding. It is an ideal solution for installation,

repair, and maintenance workshops in a multitude of manufacturing industries as well as for use in educational institutions.

In addition to the basic 180 and 250 machines there are the 180 MLP and 250 MLP models available for those who want to get extra convenience and productivity to their welding.

These models are equipped with the MLP control panel with special functions, such as the Minilog function and a very easy-to-use pulsing feature: you just set the pulse time and current average and start welding.