

# MasterTig MLS™ Technical Data

| MasterTig MLS™                |               | 2000                      | 3000                      | 4000                      |
|-------------------------------|---------------|---------------------------|---------------------------|---------------------------|
| Connection voltage            | 50/60 Hz      | 1~, 230 V -10 % ... +10 % | 3~, 400 V -15 % ... +20 % | 3~, 400 V -15 % ... +20 % |
| Rated power at max current    | TIG           | 6.5 kVA                   | 8.4 kVA                   | 13.8 kVA                  |
|                               | MMA           | 7.1 kVA                   | 9.4 kVA                   | 15 kVA                    |
| Connection cable              | HO7RN-F       | 3G2.5 (3.3 m)             | 4G1.5 (5 m)               | 4G2.5 (5 m)               |
| Fuse, delayed                 |               | 16 A                      | 10 A                      | 16 A                      |
| Load capacity 40° C           | 30 % ED TIG   | 200 A/18 V                | 300 A/22 V                | 400 A/26 V                |
|                               | 60 % ED TIG   | 150 A/16 V                | 230 A/19.2 V              | 320 A/22.8 V              |
|                               | 100 % ED TIG  | 130 A/15.2 V              | 200 A/18 V                | 270 A/20.8 V              |
|                               | 35 % ED MMA   | 160 A/26.4 V              | -                         | -                         |
|                               | 40 % ED MMA   | -                         | 250 A/30 V                | 350 A/34 V                |
| 60 % ED MMA                   | 140 A/25.6 V  | 205 A/28.2 V              | 285 A/31.4 V              |                           |
| 100 % ED MMA                  | 120 A/24.8 V  | 160 A/26.4                | 220 A/28.8 V              |                           |
| Welding range                 | TIG           | 5 A/10 V–200 A/18 V       | 5 A/10 V–300 A/22 V       | 5 A/10 V–400 A/26 V       |
|                               | MMA           | 10 A/20.5 V–160 A/26.4 V  |                           |                           |
| Open circuit voltage          |               | 80 V DC                   | 80 V DC                   | 80 V DC                   |
| Power factor at max current   |               | 0.75                      | 0.95                      | 0.95                      |
| Efficiency at maximum current |               | 0.80                      | 0.86                      | 0.86                      |
| Stick electrode               | ø mm          | 1.5...4.0                 | 1.5...5.0                 | 1.5...6.0                 |
| External dimensions           | L x W x H, mm | 410 x 180 x 390           | 500 x 180 x 390           | 500 x 180 x 390           |
| Weight                        | kg            | 15                        | 22                        | 23                        |

| Cooling units       |               | MasterCool 10       |
|---------------------|---------------|---------------------|
| Connection voltage  | 50/60 Hz      | 400 V (-15...+20 %) |
|                     |               | 230 V (-15...+10 %) |
| Rated power         | 100 % ED      | 250 W               |
| External dimensions | L x W x H, mm | 500 x 180 x 260     |
| Weight              | kg            | 10                  |

| Power Sources       |         |
|---------------------|---------|
| MasterTig 2000 MLS™ | 6112200 |
| MasterTig 3000 MLS™ | 6114300 |
| MasterTig 4000 MLS™ | 6114400 |
| Cooling units       |         |
| MasterCool 10       | 6122350 |
| Control panels      |         |
| MTL                 | 6116000 |
| MTX                 | 6116005 |
| MTM                 | 6116010 |
| MTZ                 | 6116015 |
| Transport units     |         |
| T100                | 6185250 |
| T130                | 6185222 |
| T200                | 6185258 |

| Remote control units                       |                   |
|--|-------------------|
| R 10, 5 m                                  | 6185409           |
| R 10, 10 m                                 | 618540901         |
| R 11F foot pedal                           | 6185407           |
| R 11T, wireless                            | 6185442           |
| Adapters                                   |                   |
| For air-cooled TTK torches                 | 3148720           |
| For liquid-cooled TTK torches              | 3148720 + 3148710 |
| Cables                                     |                   |
| Remote control cable, 10 m (R 10)          | 6185481           |
| Earthing and welding cables when requested |                   |



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## Master Tig MLS™

DC equipment for industrial applications



AD2020EN

Precise and refined welding quality for workshop or site use



MasterTig™ MLS 2000, MLS 3000, MLS 4000



**In brief**

- Compact size ensures effortless mobility
- Excellent ignition quality, even with long torches
- Quick pulse function increases welding speed and quality
- Suitable for mains or power generator use
- DC TIG and MMA power output



**Applications**

- Chemical and process industry
- Thin sheet metal fabrication workshops
- Installation and set-up
- Repair and maintenance
- Industrial hire business

MasterTig MLS is a dedicated DC Tig welding range offering a choice of function control panels. Compact, lightweight, but sturdy construction has made MasterTig MLS a favourite for professional DC Tig welding the world over.

■ **Choose from three power class models**

MasterTig MLS range includes three power class model options: 200A (230V, 1ph), 300A and 400A (3ph 400V) output current. Each model delivers 30% duty cycle at maximum output current in 40°C ambient temperatures, so you can be sure to have the necessary TIG welding performance even when the heat is on.

■ **Control panel choice suits different needs**

MasterTig MLS DC range offers a choice of four control panels to suit your working environment.



■ **MTL control panel** contains all the basic features required for DC TIG and MMA welding. Examples of MTL panel functions:

- Precise HF or contact ignition selection for TIG welding
- Pre-gas and post-gas control
- Torch operating mode selection (2T/4T)
- Remote control and setup options
- Welding current upslope and downslope control
- MMA Ignition pulse control and gas test
- MMA Arc dynamics control.

■ **MTX control panel** contains all MTL panel features and in addition, is equipped with pulse, quick pulse, Spot weld and 4T LOG functions.

■ **MTM control panel** contains all MTX panel features with the exception of the 4T LOG functions, plus memory channel and Minilog function.

■ **MTZ control panel** contains all MTM panel features with the exception of Memory channel.

■ **A cool head**

MasterTig models can be equipped with the optional MasterCool units. Incorporating new HydroCool technology, the units compliment the compact and lightweight features of the MasterTig MLS series, providing efficient cooling for liquid cooled TIG torches.

■ **Voltage reduction device (VRD) function**

Specific welding environments demand reductions in open-circuit voltage. With MasterTig MLS additional voltage reduction is made possible with a purpose-built VRD accessory.

■ **TIG welding torches**

Kempfi TTC welding torch range is designed for use with the Mastertig MLS equipment range. Wide ranging model options include a variety lengths, torch head sizes and innovative design.

■ **Remote current control**

MasterTig MLS offers a range of remote control devices including, hand held, on-torch, foot operated and also wireless remote control for MMA welding.



MasterTig MLS™ Ordering information

| Power Sources       |         | Remote control units                       |                   |
|---------------------|---------|--|-------------------|
| MasterTig 2000 MLS™ | 6112200 | R 10, 5 m                                  | 6185409           |
| MasterTig 3000 MLS™ | 6114300 | R 10, 10 m                                 | 618540901         |
| MasterTig 4000 MLS™ | 6114400 | R 11F foot pedal                           | 6185407           |
|                     |         | R 11T, wireless                            | 6185442           |
| Cooling units       |         | Adapters                                   |                   |
| MasterCool 10       | 6122350 | For air-cooled TTK torches                 | 3148720           |
|                     |         | For liquid-cooled TTK torches              | 3148720 + 3148710 |
| Control panels      |         | Cables                                     |                   |
| MTL                 | 6116000 | Remote control cable,10 m (R 10)           | 6185481           |
| MTX                 | 6116005 | Earthing and welding cables when requested |                   |
| MTM                 | 6116010 |  |                   |
| MTZ                 | 6116015 |  |                   |
| Transport units     |         |  |                   |
| T100                | 6185250 |  |                   |
| T130                | 6185222 |  |                   |
| T200                | 6185258 |  |                   |