

MasterTig MLS 2300 / 3000 / 3003 ACDC

MLS control for the finest TIG welding quality



+ In brief

- TIG and MMA process eg: DC-/DC+/AC/MIX TIG
- Power cost efficient, compact dimensions
- MasterCool option for high duty applications
- MicroTack for fast, low heat tack welding

+ Applications

- Metal fabrication workshops
- Shipyards and offshore industry
- Chemical and process industry
- Mechanised welding

The best tools make demanding work easy. MasterTig MLS ACDC offers TIG welding professionals the necessary control to meet their exacting needs. Whatever the application, enjoy the performance. Model choice includes a 230A version with 1-phase 230V power supply, and 300A versions with 3-phase 400V or 230/460V power supply.



Key features

MasterTig MLS ACDC is a precise aluminium welding specialist that suits all welded materials. Modular design allows you to build the package that best suits your needs.

Choose from either ACS or ACX control panels allowing fast adjustment of base parameters including: pre/post gas time, AC arc frequency and slope time values. ACS provides all necessary controls for DC, AC and MIX TIG welding with either HF or contact ignition. ACX offers additional functions including MicroTack, memory channels and pulsed welding function.



| ACS |



| ACX |



MasterTig MLS ACDC models can be equipped with optional MasterCool units. Shown here with a T100 2-wheel transport unit.

Technical brief

MasterTig MLS	2300 ACDC	3000 ACDC	3003 ACDC
Connection voltage	1~, 50/60 Hz 230 V ±15 %	3~, 50/60 Hz 400 V ±10 %	3~, 50/60 Hz 230 V -10 % ... 460 V +10 %
Fuse, delayed	3G2.5 (3.3 m)/15 A	4G2.5 (5 m)/16 A	4G2.5 (5 m)20/16 A
Output @ 40 % duty cycle (40 °C, TIG)	230 A / 19.2 V	300 A / 22 V	300 A / 22 V
Dimensions LxWxH	430 x 180 x 390 mm	500 x 180 x 390 mm	500 x 180 x 390 mm
Weight	15 kg	23 kg	25 kg

MasterTig MLS 2300 / 3000 / 3003 ACDC

Technical specifications

MasterTig MLS		2300 ACDC	3000 ACDC	3003 ACDC
Connection voltage	50/60 Hz	1~, 230 V ($\pm 15\%$)	3~, 400 V ($\pm 10\%$)	3~, 230 V (-10%)...460 V ($+10\%$)
Rated power at maximum current	TIG	5.7 kVA	13.3 kVA	9.2 kVA
	MMA	6.0 kVA	14.4 kVA	10 kVA
Connection cable	H07RN-F	3G2.5 (3.3 m)	4G2.5 (5 m)	4G2.5 (5 m)
Fuse recommendation (slow)		15 A	16 A	20/16 A
Load capacity 40 °C	40 % ED TIG	230 A/19.2 V	300 A/22 V	300 A/22 V
	60 % ED TIG	200 A/18 V	230 A/19.2 V	230 A/19.2 V
	100 % ED TIG	170 A/16.8 V	190 A/17.6 V	190 A/17.6 V
	40 % ED MMA	180 A/27.2 V	250 A/30 V	250 A (230 V AC 30 %)/30 V
	60 % ED MMA	150 A/26 V	230 A/29.2 V	230 A/29.2 V
	100 % ED MMA	120 A/24.8 V	190 A/27.6 V	190 A/27.6 V
Welding range	TIG	3 A/10 V–230 A/19.2 V	3 A/10.0 V–300 A/22 V	3 A/10.0 V–300 A/22 V
	MMA	10 A/20.5 V–180 A/27.2 V	10 A/20.5 V–250 A/30 V	10 A/20.5 V–250 A/30 V
Open circuit voltage		58 V DC	63 V DC	58 V DC
	AU models	20 V DC/VRD	20 V DC/VRD	-
Power factor at maximum current		0.99	0.62	0.95
Efficiency at maximum current		82 %	83 %	81 %
Stick electrode \varnothing mm	MMA	1.5–4.0	1.5–5.0	1.5–5.0
External dimensions	L x W x H mm	430 x 180 x 390	500 x 180 x 390	500 x 180 x 390
Weight	kg	15	23	25

Cooling unit		MasterCool 20	MasterCool 30
Connection voltage		230 V ($\pm 15\%$)	24 V DC
Rated power	100 % ED	50 W	50 W
Cooling power		1.0 kW	1.0 kW
Maximum pressure		400 kPa	400 kPa
Recommended cooling liquid		20–40 % ethanol/water mixture	20–40 % ethanol/water mixture
Tank volume		3 l	3 l
External dimensions	L x W x H, mm	500 x 180 x 260	500 x 180 x 260
Weight	kg	8	8



| MasterCool 30 |

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Ordering information

Power sources

MasterTig MLS 2300 ACDC	6162300
MasterTig MLS 2300 ACDC VRD AU	6162300AU
MasterTig MLS 3000 ACDC	6163000
MasterTig MLS 3000 ACDC VRD	6163000VRD
MasterTig MLS 3003 ACDC	6163003

Control panels

ACS	6162805
ACX	6162804

Welding cable

16 mm ² , 5 m	6184103
25 mm ² , 5 m	6184201
25 mm ² , 10 m	6184202
35 mm ² , 5 m	6184301
16 mm ² , 5 m	6184113
25 mm ² , 5 m	6184211
25 mm ² , 10 m	6184212
35 mm ² , 5 m	6184311
Gas flow gauge AR/clock	6265136

Cooling units

MasterCool 20	6162900
MasterCool 30	6163900

Torches

TTC 160, 4 m	627016004
TTC 160, 8 m	627016008
TTC 160, 16 m	627016016
TTC 220, 4 m	627022004
TTC 220, 8 m	627022008
TTC 220, 16 m	627022016
TTC 200W, 4 m	627020504
TTC 200W, 8 m	627020508
TTC 200W, 16 m	627020516
TTC 250W, 4 m	627025504
TTC 250W, 8 m	627025508
TTC 250W, 16 m	627025516

Remote control units

RTC 10	6185477
RTC 20	6185478
R 10, 5m	6185409
R11F	6185407

Transport units

T130	6185222
T110	6185251
T100	6185250



| RTC 20 |



| RTC 10 |



| R11F |

TTC TIG welding torches are available in a variety of lengths and support either RTC10 or RTC20 remote control modules.

For more product information, videos and news, please visit our website at www.kemppi.com

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Ordering information

		TTC 130	TTC 130F	TTC 160	TTC 160S	TTC 220	TTC 200W	TTC 250W	TTC 250WS
Load capacity, Ar + CO ₂	DC 40 % ED	130 A	130 A	160 A	160 A	220 A	300 A	350 A	250 A
	DC 100 % ED						200 A	250 A	200 A
Electrodes	ø mm	1.0–2.4	1.0–2.4	1.0–2.4	1.0–2.4	1.0–3.2	1.0–2.4	1.0–4.0	1.0–4.0
Connection	Gas/current	R¼	R¼	R¼	R¼	R¼	R¼	R¼	R¼
	Liquid						Snap connection	Snap connection	Snap connection
Ordering code	4 m	627013004	627013104	627016004	627016204	627022004	627020504	627025504	627025704
	8 m	627013008	627013108	627016008	627016208	627022008	627020508	627025508	627025708
	16 m	627013016	627013116	627016016	627016216	627022016	627020516	627025516	627025716

RTC 10 (6185477) and RTC 20 (6185478) remote control units are available as options.