



FastMig™ Synergic



Product benefits

- Efficient and powerful 300 A, 400 A and 500 A power sources
- Lightweight, compact and modular design
 - Different function panels – choose the suitable control level
 - Choice of 3 wire feed unit cabinet design suitable for different welding environments
 - High duty cycle power sources delivering 300, 380 and 430 A welding currents at 100 %
- Synergic programs library for the most common materials
- Optional FastROOT™ welding process software product for fast, accurate root closure welding in Fe & Ss materials
- MIG/MAG and MMA welding processes as standard

Applications

- Heavy and medium heavy fabrication industry
- Shipyards and Offshore
- Petrochemical process industry pipework
- Structural steel workshops

 **KEMPPi**
The Joy of Welding
www.kemppi.com

Kemppi FastMig™ Synergic

All the elements needed for successful MIG/MAG welding from the same device

- Basic welding
- Synergic welding
- Root pass welding

The FastMig™ Synergic range is suitable for the MIG/MAG welding of all materials in the heavy and medium heavy metal industry. The range is modular, allowing the construction of different welding configurations by varying power source, wire feed and panel options.

The power to weight ratio of the energy-saving FastMig™ Synergic power sources for 300, 400 and 500 amperes is without peer.

The wire feed unit casings are designed for demanding conditions and different environments. Three models are available for 200 mm and 300 mm wire spools. MSF 53 and 57 have shock-proof, recyclable double plastic casings. A powerful engine with precise gears and power transmission guarantee an uninterrupted, reliable wire feed. Two panel options are available for each wire feed device to suite different welding needs.

The FastCool 10 provides effective cooling of liquid cooled MIG/MAG welding guns in heavy duty applications.

FastROOT™ process is an optional FastMig™ software product for fast, accurate root pass welding in Fe & Ss materials (See page 4).

Safety – the FastMig™ Basic machines fulfil the IEC 974-1 and IEC 60974-5 structural and safety standards. The machines are also CE approved. The enclosure class of the FastMig™ Basic devices is IP23C.



FastMig™ Synergic -range includes:

- 3 power sources: KMS 300, KMS 400, KMS 500
- 3 wire feeders: MSF 53, MSF 55, MSF 57
- 4 panel options: SF 51, 52, 53 and 54
- Cooling unit FastCool 10
- Transport unit PMS 500

Technical data

FastMig™ Power sources	FastMig™ KMS 300	FastMig™ KMS 400	FastMig™ KMS 500
Mains voltage	3~50/60 Hz 400 V -15 %...+20 %	400 V -15 %...+20 %	400 V -15 %...+20 %
Rated power	60 % ED -	-	26,1 kVA
	80 % ED -	19,5 kVA	-
	100 % ED 13,9 kVA	18,5 kVA	20,3 kVA
Connection cable/fuse delayed	4 x 6 S - 5 m / 25 A	4 x 6 S - 5 m / 35 A	4 x 6 S - 5 m / 35 A
Loadability	60 % ED -	-	500 A
	80 % ED -	400 A	-
	100 % ED 300 A	380 A	430 A
Welding voltage range	MIG 10 V ... 37 V	10 V ... 39 V	10 V ... 42 V
	MMA 10 A ... 300 A	10 A ... 400 A	10 A ... 500 A
Max. welding voltage	46 V	46 V	46 V
Open circuit voltage / Open circuit power	50 V / 25 W	50 V / 25 W	50 V / 25 W
Efficiency	87 %	87 %	87 %
Power factor	0,9	0,9	0,9
Dimensions mm	L x W x H 590 x 230 x 430	590 x 230 x 430	590 x 230 x 430
Weight	34 kg	35 kg	36 kg

FastMig™ Synergic wire feeders – for different welding environments



MSF 53

- compact and lightweight making it easy to live with in tight situations
- material: double skinned durable and impact resistant plastic
- for 200 mm wire spools
- Panels: basic 51, synergic panel 52



MSF 55

- functional, stylish and lightweight, suits conventional workshop applications
- material: plastic and aluminium
- for 300 mm wire spools
- Panels: basic 54, synergic panel 53



MSF 57

- designed for extra tough workshops and site use
- material: double skinned durable and impact resistant plastic
- for 300 mm wire spools
- Panels: basic 54, synergic panel 53

FastMig™ Synergic panels – Choose the control level that suits your application

With clear and logical displays, the FastMig™ Synergic range panels have a large number of different features and special functionalities enabling further improvements in welding quality and productivity.

The MSF 53 wire feed device can be equipped with either the SF 51 panel with basic functionality or the more versatile SF 52 synergic panel while the MSF 55 and 57 wire feed devices can be equipped with the basic SF 54 panel or the synergic SF 53 panel.

SF 51, SF 54



Panels 51 and 54 contain e.g. the following **basic functions**

- Digital displays
- Stepless welding voltage control
- Stepless wire feed control
- MMA welding option
- Gas test
- Wire inch

SF 52, SF 53

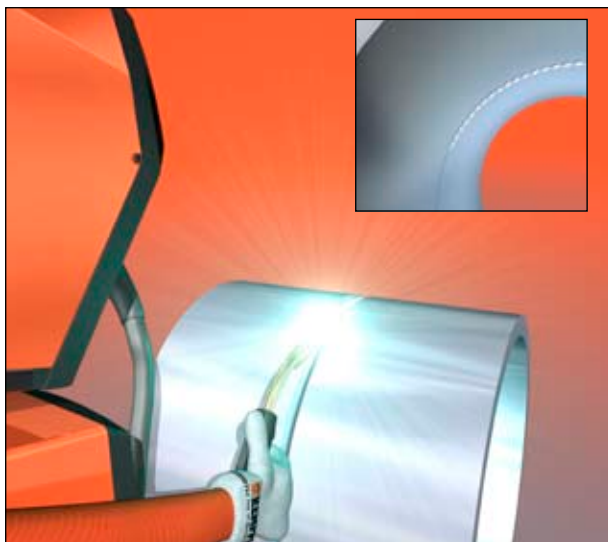


In addition to the basic functions, **synergic panels 52 and 53** include:

- Crater filling
- Hot start
- Creep start
- Memory locations for storing MIG parameters
- Optional FR-MIG process for root pass welding

Technical data

FastMig™ Wire feeders	MSF 53	MSF 55	MSF 57	FastMig™ Cooling unit	FastCool 10
Working voltage (safety voltage)	50 V DC	50 V DC	50 V DC	Connection voltage	24 V DC
Rated power	100 W	100 W	100 W	Connection capacity	100 % ED 50 W
Max. load (nominal values)	60 % ED 520 A	520 A	520 A	Cooling power	1 kW
	100 % ED 440 A	440 A	440 A	Start pressure, max.	450 kPa
Operation principle	4-roll feed	4-roll feed	4-roll feed	Cooling liquid	20 % - 40 % ethanol/water
Diameter of feed roll	32 mm	32 mm	32 mm	Reservoir volume	ca. 3 l
Wire feed speed	0...25 m/min	0...25 m/min	0...25 m/min	Dimensions mm	L x W x H 570 x 230 x 280
Filler wires ø	Fe, Ss 0.6...1.6	0.6...1.6	0.6...1.6	Weight	11 kg
	Cored wire 0.8...1.6	0.8...2.0	0.8...2.0		
	Al 1.0...1.6	1.0...2.4	1.0...2.4		
Wire reel max. weight / max. size	5 kg / ø 200 mm	20 kg / ø 300 mm	20 kg / ø 300 mm		
Dimensions mm	L x W x H 510 x 200 x 310	620 x 210 x 445	625 x 243 x 476		
Weight	9.4 kg	11.1 kg	14 kg		
Material	plastic	metal	plastic		



FastROOT™

Developed by Kemppi, FastROOT™ welding process is an optional FastMig™ software product for fast, accurate root pass welding in Fe & Ss materials. The FastROOT™ welding process is only available for use with the FastMig™ SF 52 and SF 53 function panels. The Kemppi FastROOT™ welding process software can be purchased as an up-grade to standard FastMig™ Synergic machines at a later date if required. FastROOT™ process is an excellent option over conventional root pass welding in MMA.

FAST – Formula Arc System Technology

Arc properties guaranteed to increase welding productivity and quality

Order Information

Power sources	FastMig™ KMS 300	6053000	MIG -guns	PMT 35 3 m	6253513	
	FastMig™ KMS 400	6054000		PMT 35 4,5 m	6263514	
	FastMig™ KMS 500	6055000		PMT 42 3 m	6254213	
Panels	SF 51	6085100	PMT 42 4,5 m	6254214		
	SF 52	6085200	PMT 50 3 m	6255013		
	SF 53	6085300	PMT 50 4,5 m	6255014		
	SF 54	6085400	PMT 42W 3 m	6254203		
FastROOT™ -feature		6265011	PMT 42W 4,5 m	6254204		
Wire feeders	MSF 53	6065300	PMT 52W 3 m	6255203		
	MSF 55	6065500	PMT 52W 4,5 m	6255204		
	MSF 57	6065700	Return current cable	5 m, 50 mm ²	6184511	
Cooling unit	FastCool 10	606810001		5 m, 70 mm ²	6184711	
Transport unit	PMS 500	6185291	Cable for MMA welding	5 m, 50 mm ²	6184501	
Accessories				5 m, 70 mm ²	6184701	
	Remote control units	R10, 5 m	6185409	Interconnection cables	KWF 70-1,8-GH	6260401
		R10, 10 m	618540901		KMS 70-1,8-WH	6260410
		R20, 5 m	6185419		KWF 70-5-GH	6260405
	RMT 10 (for PMT)	6185475		KWF 70-5-WH	6260407	
Remote controlled interconnecting cable, 10 m		6185481		PROMIG 2/3 70-10-GH	6260326	
MSF 53 hanging frame (incl. KPS mounting set)		6185285		PROMIG 2/3 70-10-WH	6260334	
MSF 55 hanging kit		W001693		PROMIG 2/3 70-15-GH	6260325	
MSF 53 protection slides (incl. KPS mounting set)		6185286		PROMIG 2/3 70-15-WH	6260335	
Gas Guard	GG 200/300	6237406	Gun holder	GH 30	6256030	