

# FastMig M – Proven reliability from the top of the welding technology



## Briefly

- Modular design
- Two package options: Regular and Synergic
- Multi-voltage power source model available
- All Wise™ welding optimisation products
- MasterTig LT 250 and ArcFeed connection in power source with the optional AS kit
- SuperSnake sub feeder for extended reach
- MagTrac F 61 welding carriage for improved productivity



## Applications

- Offshore and shipyards
- Metal workshops
- Construction



## Product package options

FastMig M is a modular welding equipment range containing three power source and three wire feeder options.

There are two FastMig M sales packages available with either air or liquid cooling option:

### Regular package

- Regular set-up for strong and reliable industrial welding for affordable price
- Equipped with the MR control panel
- Easy traditional two-knob regulation

### Synergic package

- Synergic set-up for demanding industrial applications
- Equipped with the MS control panel
- Clear visual presentation of the welding parameters and programs, one-knob control of welding power, easy setup and selection of memory channels

See detailed technical information and ordering codes later in this datasheet.



For more product information, videos and news, please visit our website at [www.kemppi.com](http://www.kemppi.com)



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There are following three power source and wire feeder options that you can choose for your Regular or Synergic FastMig M package.

## Power source options

### Three power levels:

- 320 A at 100 % duty cycle
- 420 A at 60 % duty cycle
- 420 A at 60 % duty cycle (Multi-Voltage)
- 520 A at 60 % duty cycle
- Mains connection is 3-phase 400 V  
Multi-voltage version accepts 3-phase 220-230 V and 380-400 V mains supply

See detailed technical information and ordering codes later in this datasheet.



## Wire feeder options

- FastMig MXF 63 is a small and light model for 200 mm wire spools
- FastMig MXF 65 is a metal casing model for 300 mm wire spools
- FastMig MXF 67 is an extra-strong dual-skin plastic casing model for 300 mm wire spools

NOTE: All wire feeder models have a special EL type to be used with synergic MS control panels.

## Control panel options

- MR type of control panels are for Regular FastMig M packages
- MR 200 fits MXF 63 wire feeder, and MR 300 fits MXF 65 and MXF 67 wire feeders
- MS type of control panels are for Synergic FastMig M packages
- MS 200 fits MXF 63 EL wire feeder, and MS 300 fits MXF 65 EL and MXF 67 EL wire feeders



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## Cooling options

- You can purchase your FastMig M system either air-cooled or equipped with the FastCool 10 liquid cooling unit

## Compatibility with welding quality solutions

- ArcQuality welding management system
- ArcInfo welding monitoring system
- Kemppi Universal WPS packages for MMA and MIG/MAG welding

## Optional extras

- AS Kit is an optional control kit for the FastMig M power source. It allows stand-alone usage of the power source for MMA welding and for outside devices like MasterTig LT 250 and ArcFeed
- SuperSnake sub feeder for extra wide working range to up to 30 m
- Welding carriage MagTrac F 61
- Remote controllers R10, R20, R30
- Gun remote controller RMT10
- Transport units PM 500, P 501
- Gun holder GH 30
- Protection sliders for MXF 63
- Gas guard GG200/300
- Wise™ and Match™ products for the Synergic package



## Technical specifications

|   | FastMig M 320   | FastMig M 420   | FastMig M 520   |
|---|---|---|---|
| Connection voltage  |   |   |   |
| 3~, 50/60 Hz  | 400 V -15 %...+20 %                                   | 400 V -15 %...+20 %                                   | 400 V -15 %...+20 %                                   |
| Rated power   |   |   |   |
| 60 % ED   | -   | 20 kVA  | 27 kVA  |
| 100 % ED  | 15 kVA  | 18 kVA  | 20 kVA  |
| Connection cable  | H07RN-F 4G6 (5 m)                                     | H07RN-F 4G6 (5 m)                                     | H07RN-F 4G6 (5 m)                                     |
| Fuse (delayed)  | 25 A  | 35 A  | 35 A  |
| Output 40 °C  |   |   |   |
| 60 % ED   | -   | 420 A   | 520 A   |
| 100 % ED  | 320 A   | 380 A   | 430 A   |
| Welding current and voltage range                             |   |   |   |
| MMA   | 15 A/20 V – 320 A/45 V                                | 15 A/20 V – 420 A/44 V                                | 15 A/20 V – 520 A/43 V                                |
| MIG   | 20 A/12 V – 320 A/45 V                                | 20 A/12 V – 420 A/44 V                                | 20 A/12 V – 520 A/43 V                                |
| Max. welding voltage  | 45 V  | 45 V  | 45 V  |
| Open circuit voltage MMA                                      | U <sub>0</sub> = 48 – 53 V,<br>U <sub>av</sub> = 50 V | U <sub>0</sub> = 48 – 53 V,<br>U <sub>av</sub> = 50 V | U <sub>0</sub> = 48 – 53 V,<br>U <sub>av</sub> = 50 V |
| Open circuit voltage MIG/MAG                                  | U <sub>0</sub> = 50 – 58 V                            | U <sub>0</sub> = 50 – 58 V                            | U <sub>0</sub> = 50 – 58 V                            |
| Idle power  | 25 W  | 25 W  | 25 W  |
| Efficiency at max. current                                    | 88 %  | 89 %  | 89 %  |
| Power factor at max. current                                  | 0.80  | 0.87  | 0.90  |
| Operating temperature range                                   | -20 ... +40 °C  | -20 ... +40 °C  | -20 ... +40 °C  |
| Storage temperature range                                     | -40 ... +60 °C  | -40 ... +60 °C  | -40 ... +60 °C  |
| Degree of protection  | IP23S   | IP23S   | IP23S   |
| EMC class   | A   | A   | A   |
| Minimum short circuit power S <sub>sc</sub> of supply network | -   | 5.6 MVA   | 5.8 MVA   |
| External dimensions   |   |   |   |
| length  | 590 mm  | 590 mm  | 590 mm  |
| width   | 230 mm  | 230 mm  | 230 mm  |
| height  | 430 mm  | 430 mm  | 430 mm  |
| weight  | 34 kg   | 35 kg   | 36 kg   |
| Voltage supply for auxiliary devices                          | 50 V DC   | 50 V DC   | 50 V DC   |
| X14, X15  | fuse 6.3 A delayed                                    | fuse 6.3 A delayed                                    | fuse 6.3 A delayed                                    |
| Operating voltage (for cooling unit)                          | 400 V -15 %...+20 %                                   | 400 V -15 %...+20 %                                   | 400 V -15 %...+20 %                                   |

## Technical specifications

| FastMig™ M 420MV  |              | 230 V range   | 400 V range   |
|---|--------------|---|---|
| Connection voltage  | 3~, 50/60 Hz | 220 V -10 %...230 V +10 %                             | 380 V -10 %...440 V +10 %                             |
| Rated power   | 60% ED       | 21 kVA  | 22 kVA  |
|   | 100% ED      | 18 kVA  | 19 kVA  |
| Connection cable  | H07RN-F      | 4G6 (5 m)   | 4G6 (5 m)   |
| Fuse (delayed)  |              | 50 A  | 35 A  |
| Output 40 °C  | 60 % ED      | 420 A   | 420 A   |
|   | 100 % ED     | 380 A   | 380 A   |
| Welding current and voltage range                             | MMA          | 15 A/20 V...420 A/48 V                                | 15 A/20 V...420 A/44 V                                |
|   | MIG          | 20 A/12 V...420 A/48 V                                | 20 A/12 V...420 A/44 V                                |
| Max. welding voltage  |              | 48 V  | 44 V  |
| Open circuit voltage  | MMA          | U <sub>0</sub> = 48...53 V,<br>U <sub>av</sub> = 50 V | U <sub>0</sub> = 48...53 V,<br>U <sub>av</sub> = 50 V |
|   | MIG/MAG      | U <sub>0</sub> = 60...65 V                            | U <sub>0</sub> = 53...58 V                            |
| Idle power  |              | 25 W  | 25 W  |
| Efficiency at max. current                                    |              | 87 %  | 87 %  |
| Power factor at max. current                                  |              | 0.85  | 0.82  |
| Operating temperature range                                   |              | -20...+40 °C  | -20...+40 °C  |
| Storage temperature range                                     |              | -40...+60 °C  | -40...+60 °C  |
| Degree of protection  |              | IP23S   | IP23S   |
| EMC class   |              | A   | A   |
| Minimum short circuit power S <sub>sc</sub> of supply network |              | N/A   | 5.6 MVA   |
| External dimensions   | L x W x H    | 590 x 230 x 580 mm                                    | 590 x 230 x 580 mm                                    |
| Weight  |              | 49 kg   | 49 kg   |
| Voltage supply for auxiliary devices                          |              | 50 V DC   | 50 V DC   |
| X14, X15  |              | fuse 6.3 A delayed                                    | fuse 6.3 A delayed                                    |
| Operating voltage (for cooling unit)                          |              | 380 V -10 %...440 V +10 %                             | 380 V -10 %...440 V +10 %                             |

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## Technical specifications

| FastMig                            |              | MXF 63             | MXF 65             | MXF 67             |
|------------------------------------|--------------|--------------------|--------------------|--------------------|
| Operating voltage (safety voltage) |              | 50 V DC            | 50 V DC            | 50 V DC            |
| Rated power                        |              | 100 W              | 100 W              | 100 W              |
| Output 40 °C                       | 60 % ED      | 520 A              | 520 A              | 520 A              |
|                                    | 100 % ED     | 440 A              | 440 A              | 440 A              |
| Wire feed speed                    |              | 0 – 25 m/min       | 0 – 25 m/min       | 0 – 25 m/min       |
| Wire feed mechanism                |              | 4-roll             | 4-roll             | 4-roll             |
| Diameter of feed rolls             |              | 32 mm              | 32 mm              | 32 mm              |
| Filler wires                       | ∅ Fe, Ss     | 0.6 – 1.6 mm       | 0.6 – 1.6 mm       | 0.6 – 1.6 mm       |
|                                    | ∅ Cored wire | 0.8 – 1.6 mm       | 0.8 – 2.0 mm       | 0.8 – 2.0 mm       |
|                                    | ∅ Al         | 1.0 – 1.6 mm       | 1.0 – 2.4 mm       | 1.0 – 2.4 mm       |
| Wire spool                         | max. weight  | 5 kg               | 20 kg              | 20 kg              |
|                                    | max. ∅       | 200 mm             | 300 mm             | 300 mm             |
| Maximum gas pressure               |              | 0.5 MPa            | 0.5 MPa            | 0.5 MPa            |
| Gun connection                     |              | Euro               | Euro               | Euro               |
| Operation temperature range        |              | -20 ... +40 °C     | -20 ... +40 °C     | -20 ... +40 °C     |
| Storage temperature range          |              | -40 ... +60 °C     | -40 ... +60 °C     | -40 ... +60 °C     |
| EMC class                          |              | A                  | A                  | A                  |
| Degree of protection               |              | IP23S              | IP23S              | IP23S              |
| External dimensions                | L x W x H    | 510 x 200 x 310 mm | 620 x 210 x 445 mm | 625 x 243 x 476 mm |
| Weight                             |              | 9.4 kg             | 11.1 kg            | 12.5 kg            |

## Ordering information

| Power sources   |  |         |
|-----------------|--|---------|
| FastMig M 320   |  | 6132320 |
| FastMig M 420   |  | 6132420 |
| FastMig M 520   |  | 6132520 |
| FastMig M 420MV |  | 6132423 |

  

| Wire feeders |                           |           |
|--------------|---------------------------|-----------|
| MXF 65 EL    | To be used with MS panels | 6152100EL |
| MXF 67 EL    | To be used with MS panels | 6152200EL |
| MXF 63 EL    | To be used with MS panels | 6152300EL |
| MXF 65       | To be used with MR panels | 6152100   |
| MXF 67       | To be used with MR panels | 6152200   |
| MXF 63       | To be used with MR panels | 6152300   |

  

| Panels for wire feeders |  |         |
|-------------------------|--|---------|
| FastMig MR 200          |  | 6136100 |
| FastMig MR 300          |  | 6136200 |
| FastMig MS 200          |  | 6136300 |
| FastMig MS 300          |  | 6136400 |

  

| Software                         |  |         |
|----------------------------------|--|---------|
| WiseFusion welding function      |  | 9991014 |
| WisePenetration welding function |  | 9991000 |
| WiseRoot welding process         |  | 6265011 |
| WiseThin welding process         |  | 9991013 |
| WiseSynergicMig                  |  | 9990420 |
| MatchLog                         |  | 9991017 |
| MatchPIN                         |  | 6265026 |

## Ordering information

| Accessories                                 |                         |           |
|---|-------------------------|-----------|
| Earth return cable                          | 5 m, 50 mm <sup>2</sup> | 6184511   |
| Earth return cable                          | 5 m, 70 mm <sup>2</sup> | 6184711   |
| Cable for MMA welding                       | 5 m, 50 mm <sup>2</sup> | 6184501   |
| Cable for MMA welding                       | 5 m, 70 mm <sup>2</sup> | 6184701   |
| AS KIT                                      |                         | 6264263   |
| Cooling unit FastCool 10                    |                         | 6068100   |
| Cabinet heater KWF 200/300                  |                         | 6185288   |
| Gun holder GH 30                            |                         | 6256030   |
| Sub feeder synchronisation unit MXF Sync 65 |                         | W004030   |
| SuperSnake GT02S sub feeder                 | 10m                     | 6153100   |
| SuperSnake GT02S sub feeder                 | 15m                     | 6153150   |
| SuperSnake GT02S sub feeder                 | 20m                     | 6153200   |
| SuperSnake GT02S sub feeder                 | 25m                     | 6153250   |
| SuperSnake GT02S W sub feeder               | 10m                     | 6154100   |
| SuperSnake GT02S W sub feeder               | 15m                     | 6154150   |
| SuperSnake GT02S W sub feeder               | 20m                     | 6154200   |
| SuperSnake GT02S W sub feeder               | 25m                     | 6154250   |
| Transport unit PM500                        |                         | 6185291   |
| Transport unit P 501                        |                         | 6185269   |
| Transport unit PM 501                       |                         | 6185292   |
| Transport unit PM 502                       |                         | 6185293   |
| MSF 55 & MXF 65 hanging kit                 |                         | W001694   |
| KFH 1000 hanging device                     |                         | 6185100   |
| KV 200 mounting kit for 2 wire feeders      |                         | 6185249   |
| R10   |                         | 6185409   |
| R20   | 5 m                     | 6185419   |
| R30 DataRemote                              | 5 m                     | 6185420   |
| R30 DataRemote                              | 10 m                    | 618542001 |
| RMT 10 (for PMT MIG gun)                    |                         | 6185475   |
| Remote controlled interconnecting cable     | 10 m                    | 6185481   |



## Ordering information

| MIG guns |                 |       |            |
|----------|-----------------|-------|------------|
| PMT 35   |                 | 3 m   | 6253513    |
| PMT 35   |                 | 4,5 m | 6253514    |
| PMT 42   |                 | 3 m   | 6254213    |
| PMT 42   |                 | 4,5 m | 6254214    |
| PMT 50   |                 | 3 m   | 6255013    |
| PMT 50   |                 | 4,5 m | 6255014    |
| PMT 30W  |                 | 3 m   | 6253043    |
| PMT 30W  |                 | 4,5 m | 6253044    |
| PMT 42W  |                 | 3 m   | 6254203    |
| PMT 42W  |                 | 4,5 m | 6254204    |
| PMT 52W  |                 | 3 m   | 6255203    |
| PMT 52W  |                 | 4,5 m | 6255204    |
| WS 35    | AL 1.2 mm       | 6 m   | 6253516A12 |
| WS 30 W  | AL 1.2 – 1.6 mm | 6 m   | 6253046A12 |
| WS 30 W  | AL 1.2 – 1.6 mm | 8 m   | 6253048A12 |
| WS 42 W  | AL 1.2 – 1.6 mm | 6 m   | 6254206A12 |
| WS 42 W  | AL 1.2 – 1.6 mm | 8 m   | 6254208A12 |
| WS 35    | Ss 1.0 mm       | 6 m   | 6253516S10 |
| WS 30 W  | Ss 1.0 mm       | 6 m   | 6253046S10 |
| WS 30 W  | Ss 1.2 mm       | 6 m   | 6253046S12 |
| WS 30 W  | Ss 1.0 mm       | 8 m   | 6253048S10 |
| WS 30 W  | Ss 1.2 mm       | 8 m   | 6253048S12 |
| WS 42 W  | Ss 1.0 mm       | 6 m   | 6254206S10 |
| WS 42 W  | Ss 1.2 mm       | 6 m   | 6254206S12 |
| WS 42 W  | Ss 1.0 mm       | 8 m   | 6254208S10 |
| WS 42 W  | Ss 1.2 mm       | 8 m   | 6254208S12 |

For a complete list of welding guns, please visit Kemppi website at [www.kemppi.com](http://www.kemppi.com).

|                                     |  |       |         |
|-------------------------------------|--|-------|---------|
| Interconnection cable               |  | 1.8 m | 6260401 |
| Interconnection cable               |  | 5 m   | 6260405 |
| Interconnection cable               |  | 10 m  | 6260326 |
| Interconnection cable               |  | 15 m  | 6260325 |
| Interconnection cable               |  | 20 m  | 6260327 |
| Interconnection cable               |  | 30 m  | 6260330 |
| Interconnection cable, water cooled |  | 1.8 m | 6260410 |
| Interconnection cable, water cooled |  | 5 m   | 6260407 |
| Interconnection cable, water cooled |  | 10 m  | 6260334 |
| Interconnection cable, water cooled |  | 15 m  | 6260335 |
| Interconnection cable, water cooled |  | 20 m  | 6260337 |
| Interconnection cable, water cooled |  | 30 m  | 6260340 |
| Other lengths available             |  |       |         |