Master M 323 GM

MSM323GM

A portable multiprocess welder that provides 320 A with a 40% duty cycle. Manual and synergic MIG welding options available, along with stick and DC TIG welding options. Intelligent welding parameter setting with Weld Assist. Includes 28 factory-installed welding programs for 1-MIG and 4 factory-installed MAX Cool welding programs. Welding programs include Fe, Ss, Al, CuSi, CuAl, Fe Metal, Fe Rutil, and FC-CrNiMo materials. Suitable for generator use.

Technical data

Description	Value
Mains connection voltage	380...460 V ±10 %
Mains connection voltage (MV low range)	220...230 V ±10 %
Mains connection phases	3~50/60 Hz
Mains connection cable type	H07RN-F
Mains connection cable size	2.5 mm²
Maximum supply current [I1max]	16 A...19 A
Maximum supply current (@MV low	28 A

Description	Value
range) [I1max]	
Effective supply current [I1eff]	10 A...12 A
Effective supply current (@MV low range) [I1eff]	17 A
Rated maximum input power [S1max]	13 kVA
Mains fuse	16 A
Mains fuse (@MV low range)	32 A
Idle state power consumption [P1idle]	19 W
No-load state power consumption (MMA), power save	16 W
No-load state power consumption (MMA), fans ON	120 W
No-load voltage [U0]	69 V...90 V
No-load voltage (@MV low range) [U0]	40 V...42 V
Open circuit voltage [Uav]	66 V...80 V
Open circuit voltage (@MV low range) [Uav]	40 V
Output, duty cycle % at rated max. current, MIG	40 %
Output at +40 °C, rated max current, MIG	320 A
Output at +40 °C, 60% MIG	250 A
Output at +40 °C, 100% MIG	200 A
Output, duty cycle % at rated max. current, MIG (@MV low range)	40 %
Output at +40 °C, rated max current, MIG (@MV low range)	280 A
Output at +40 °C, 60% MIG (@MV low range)	230 A
Output at +40 °C, 100% MIG (@MV low range)	175 A
Output range, MIG	15 A / 10 V ... 320 A / 34 V
Output range, TIG	15 A / 1 V ... 320 A / 34 V
Output range, MMA	15 A / 10 V ... 300 A / 34 V
Output range, MIG (@MV low range)	15 A / 10 V ... 280 A / 32 V
Output range, TIG (@MV low range)	15 A / 1 V ... 280 A / 33 V
Output range, MMA (@MV low range)	15 A / 10 V ... 255 A / 33 V
Voltage adjustment range, MIG	10 V...40 V

Description	Value
VRD voltage	24 V
Power factor at rated maximum current [λ]	0.91
Efficiency at rated maximum current [η]	87 %
EMC class	A
Minimum short-circuit power of supply network [Ssc]	1.6 MVA
Voltage supply for cooling unit	24 V, 380...460 V
Voltage supply for cooling unit (MV low range)	220...230 V, 24 V
Welding connection type	Euro
Wire feed mechanism	Single-motor, 2-roll
Diameter of feed rolls	32 mm
Filler wire diameter, Fe	0.8 mm...1.2 mm
Filler wire diameter, Ss	0.8 mm...1.2 mm
Filler wire diameter, MC/FC	1.2 mm...1.2 mm
Filler wire diameter, Al	0.8 mm...1.2 mm
Wire feed speed	0.7 m/min...25 m/min
Maximum wire spool weight	5 kg
Maximum wire spool diameter	200 mm
Maximum shielding gas pressure	0.5 MPa
Control panel, model	Custom LCD
Control panel, display	Color LCD
Control panel, controls	2 control knobs, Push buttons
Control panel, type of installation	Built-in
Control panel, input voltage (DC)	12 V
Operating temperature	-20 °C...40 °C
Storage temperature	-40 °C...60 °C
Recommended minimum generator power [Sgen]	20 kVA
LED battery type and voltage	SAMSUNG SDI (INR18650-26J; 3,6 V; 2600 mAh); LG CHEM (ICR18650HE4; 3,6 V; 2500 mAh)
Degree of protection (fully installed)	IP23S
External dimensions, length	520 mm
External dimensions, width	250 mm

Description	Value
External dimensions, height	379 mm
Weight without accessories	18.5 kg
Standards	IEC 60974-1, -10

Wprog. No	Process	Wire material	Diameter	Shielding gas	Description
A01	1-MIG	AlMg5	1	Ar	Standard
A02	1-MIG	AlMg5	1,2	Ar	Standard
A11	1-MIG	AlSi5	1	Ar	Standard
A12	1-MIG	AlSi5	1,2	Ar	Standard
C01	1-MIG	CuSi3	0,8	Ar	Standard: Brazing
C03	1-MIG	CuSi3	1	Ar	Standard: Brazing
C11	1-MIG	CuAl8	0,8	Ar	Standard: Brazing
C13	1-MIG	CuAl8	1	Ar	Standard: Brazing
F01	1-MIG	Fe	0,8	Ar+18%CO2	Standard
F02	1-MIG	Fe	0,9	Ar+18%CO2	Standard
F03	1-MIG	Fe	1	Ar+18%CO2	Standard
F04	1-MIG	Fe	1,2	Ar+18%CO2	Standard
F11	1-MIG	Fe	0,8	Ar+8%CO2	Standard
F12	1-MIG	Fe	0,9	Ar+8%CO2	Standard
F13	1-MIG	Fe	1	Ar+8%CO2	Standard
F14	1-MIG	Fe	1,2	Ar+8%CO2	Standard
F21	1-MIG	Fe	0,8	CO2	Standard
F22	1-MIG	Fe	0,9	CO2	Standard
F23	1-MIG	Fe	1	CO2	Standard
F24	1-MIG	Fe	1,2	CO2	Standard
M04	1-MIG	Fe Metal	1,2	Ar+18%CO2	Standard
R04	1-MIG	Fe Rutil	1,2	Ar+18%CO2	Standard
R14	1-MIG	Fe Rutil	1,2	CO2	Standard
S01	1-MIG	Ss	0,8	Ar+2%CO2	Standard
S02	1-MIG	Ss	0,9	Ar+2%CO2	Standard
S03	1-MIG	Ss	1	Ar+2%CO2	Standard

Wprog. No	Process	Wire material	Diameter	Shielding gas	Description
S04	1-MIG	Ss	1,2	Ar+2%CO2	Standard
S84	1-MIG	FC-CrNiMo	1,2	Ar+18%CO2	Standard
F03	Max Cool	Fe	1	Ar+18%CO2	Standard
F23	Max Cool	Fe	1	CO2	Standard
M04	Max Cool	Fe Metal	1,2	Ar+18%CO2	Standard
S03	Max Cool	Ss	1	Ar+2%CO2	Standard