

IS-Q Series - Inverter Power Supply (formerly known as ISQ Series)

The IS-Q Series - Inverter Power Supply is designed to be used in combination with mechanical, pneumatical or motorised weld heads. It offers process control monitoring with MG3 and with the OP-AWS3-A Active Welding System. The OP-AWS3-A integrates the process control of all mechanical and electrical parameters, static and dynamic process monitoring, quality analysis with advanced SPC feature and datalogging.

Key features IS-Q Series - Inverter Power Supply

- > Compact design for optimal system integration
- > Integrated process monitoring allows for quality control
- > Short cycle times thanks to high output current
- Up to 20 kHz feedback for fast reaction to fluctuations in the weld process
- > Optimum feedback thanks to current, voltage and power mode controls
- > Additional force control via proportional valve



Specifications IS-Q Series - Inverter Power Supply (formerly known as ISQ Series) 1/2

	IS-Q3000A	IS-Q6000A	IS-Q250A
Performance range	0,75 kA - 1,5 kA - 3 kA	6 kA	10 kA
Weld current types	Controlled DC inverter current	Controlled DC inverter current	AC or DC inverter
Features	Inverter with integrated power on button, Performance and Control Electronics, Voltage control cable und removable Display MFT1 (optional: AWS3-Display) and additional: compact version w/integrated transformer, voltage sensor cable	Inverter with integrated power on button, Performance and Control Electronics, Voltage control cable und removable Display MFT1 (optional: AWS3-Display) and additional: Compact version w/integrated transformer, voltage sensor cable	Inverter with integrated power on button, Performance and Control Electronics, Voltage control cable und removable Display MFT1 (optional: AWS3-Display) and additional: Separate DC- or AC- transformer
Options	19" plug-in unit without main unit	19" plug-in unit ithout main unit	19" plug-in unit without main unit
Control / control mode	Current, voltage or power feedback control, independently adjustable independently for each pulse, APC (Active Part Conditioner) function and current, voltage, performance and energy limits	Current, voltage or power feedback control, independently adjustable independently for each pulse, APC (Active Part Conditioner) function and current, voltage, performance and energy limits	Current, voltage or power feedback control, independently adjustable independently for each pulse, APC (Active Part Conditioner) function and current, voltage, performance and energy limits
Programmable weld schedules / external weld schedule selection	99 at single axis; 49 per head at dual axis	99 at single axis; 49 per head at dual axis	99 at single axis; 49 per head at dual axis
# of weld pulses	1st and/or 2nd pulse, 2nd pulse can be repeated max 10 times (decrease adjustable down to 1% of 2nd pulse)	1st and/or 2nd pulse, 2nd pulse can be repeated max 10 times (decrease adjustable down to 1% of 2nd pulse)	1st and/or 2nd pulse, 2nd pulse can be repeated max 10 times (decrease adjustable down to 1% of 2nd pulse)
Weld pulse control	Up slope, weld-time, down-slope, break time, impuls cycle	Up slope, weld-time, down-slope, break time, impuls cycle	Up slope, weld-time, down-slope, break time, impuls cycle
Current measurement	Integrated toroidal coil (Rogowski coil)	Integrated toroidal coil (Rogowski coil)	external toroidal coil
Voltage measurement	Potential free, external connection (X10 axis/head 1; X11 axis/head 2)	Potential free, external connection (X10 axis/head 1; X11 axis/head 2)	Potential free, external connection (X10 axis/head 1; X11 axis/head 2)
Limit values	Display with limit exceeding upper and lower limit, time limit, welding energy limit with sensitive components (weld to limit)	Display with limit exceeding upper and lower limit, time limit, welding energy limit with sensitive components (weld to limit)	Display with limit exceeding upper and lower limit, time limit, welding energy limit with sensitive components (weld to limit)
Out of limit error message	Text indication with limit and device errors; monitoring limits for U, I or P; + and – tolerance windows individually adjustable	Text indication with limit and device errors; monitoring limits for U, I or P; + and – tolerance windows individually adjustable	Text indication with limit and device errors; monitoring limits for U, I or P; + and – tolerance windows individually adjustable
Parts check	Test pulse for part detection (preweld-check)	Test pulse for part detection (preweld-check)	Test pulse for part detection (preweld-check)
Operation	One button toggle wheel, monochrome display, Optional: coloured OP-AWS3-A Display, Profibus or Ethernet IP	One button toggle wheel, monochrome display, Optional: coloured OP-AWS3-A Display, Profibus or Ethernet IP	One button toggle wheel, monochrome display, Optional: coloured OP-AWS3-A Display, Profibus or Ethernet IP

Supply voltage 3x 400 VAC, ± 10%, PC; 3x 2/38 V (optional), 10/20 MeD 19 ± 10%, PC; to rehaviling, 3 pole connector 19°, non-healing	Continuous sound pressure level	The equivalent continuous sound pressure level rated A is below 70 dB. Sound pressure levels may vary depending on the welding material and the environmental conditions. If necessary consult an acoustic specialist.	The equivalent continuous sound pressure level rated A is below 70 dB. Sound pressure levels may vary depending on the welding material and the environmental conditions. If necessary consult an acoustic specialist.	The equivalent continuous sound pressure level rated A is below 70 dB. Sound pressure levels may vary depending on the welding material and the environmental conditions. If necessary consult an acoustic specialist.
Supply voltage Coplinani), ISQ28 MFC 19 ± 10%, PE 10% Coplinani), 2 10%, PE 10% PE 10	Electrical data			
With 400 V: 3x 16 A, delayed, with 230 V (optional): 3x 32A, delayed with 430 V (optional): 3x 32A, delayed with 430 V (optional): 3x 32A, delayed with 430 V (optional): 3x 32A, delayed with 400 V: 4x 2.5 mm², with 230 V (optional): 3x 32A, delayed vith 400 V: 4x 4 mm² (optional): 4x 4 mm² (optional)	Supply voltage	(optional), ISQ20-MFC 19 ± 10%,	(optional), ± 10%, PE ISQ20-MFC	3x 400 VAC, ± 10%, PE
Connecting cable 230 V (optional): 3s 23A, delayed 230 V (optional): 4s 4 mm² (optional): 4s	Mains frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Protection class P30 SQ20-MFC 19": depending on housing P30 SQ20-P30 P30 SQ20-P30 P30 P30	Fusing			3 x 32A, delayed
Wolding transformer Internal for 3 kA Internal for 6 kA External DC: IT-60X AC: TRM3 14-9	Connecting cable			4 x 6 mm²
Power data IS-Q3000A IS-Q6000A IS-Q600A IS-Q50A Switching frequency max. 20 kHz max. 14 kHz 26 kHz 1 - 10 kHz (AC) 1 - 5 kHz (DC) depending on primary current depending on primary current depending on primary current 26 kHz 1 - 10 kHz (AC) 2 - 10 kHz (DC) Left frequency AC Rated power Rated power 12 kVA 24 kVA 40 kVA (DC) Max weld current 3 kA with 5% d.r. 6 kA with 5% d.r. 10 kA with 8% d.r. 10 kA or yourse Min. weld period 27 ms 0.7 ms 0.7 ms 0.7 ms 0.0 0.7 ms 0.0 0.7 ms AC: 0,5 x impuls frequency Min. weld period 4 V with 3 kA 4 V with 6 kA 10 Cc. 4 V with 10 kA AC: dep on transformer Max. open-circuit voltage 10 V 10 V 10 C: 10 V AC: dep on transformer Analog input Pressure sensor for proportional valve Interface Secondary connections CU-rails, 2 x M8 internal thread CU-rails, 2 x M8 internal thread Depending on transformer Pressure sensor for proportional valve Vio D. Sub-9 socket, welding data output in ASCII-compatible printing format Binary interface Binary interface upto interface a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves will object counter, set point deviation, closing stroke, welding pressure, air valves will object counter, set point deviation, closing stroke, welding pressure, air valves	Protection class			
Connected load 11 kVA 11 kVA 22 kVA	Welding transformer	internal for 3 kA	internal for 6 kA	
Switching frequency max. 20 kHz max. 14 kHz max. 14 kHz 1 - 10 kHz (AC) 1 - 5 kHz (DC) depending on primary current 26 kHz 1 - 10 kHz (AC) 2 - 10 kHz (DC) depending on primary current AC: 50 - 250 Hz Rated power 12 kVA 24 kVA 40 kVA (DC) Max weld current 3 kA with 5% d.r. 6 kA with 5% d.r. 10 kA with 8% d.r. Do only Max. weld period 320 ms/pulse 320 ms/pulse 640 ms/pulse DC: 0,7 ms AC: 0,5 x impuls frequency Rated output current 2 kA 11% d.r. 3 kA 20% d.r. depending on transformer Min. terminal voltage 10 V 10 V 10 V DC: 10 V AC: dep on transformer Wax. open-circuit voltage Interface Secondary connections CU-rails, 2 x M8 internal thread CU-rails, 2 x M8 internal thread Depending on transformer Pressure sensor for proportional valve control valve valve Analog output Proportional valve control Via D-Sub-9 socket; welding data output in ASCII-compatible printing format Digital interface Start, quick stop, pressure sensor sensor Start, quick stop, pressure sensor for pressure sensor sensor a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves welding pressure, air valves valve 1 - 10 kHz (AC) 2 - 10 kHz (DC) AC: 50 - 250 Hz AC: 50 - 27 ms AC: 50 - 27 ms AC: 40 with 5% d.r. 10 kHz AC: 50 - 24 with 5% d.r. 10 kT vis	Power data	IS-Q3000A	IS-Q6000A	IS-Q250A
Output frequency 40 kHz 26 kHz 1 - 10 kHz (AC) 2 - 10 kHz (DC) Fundamental frequency AC Rated power 12 kVA 24 kVA 40 kVA (DC) Max weld current 3 kA with 5% d.r. 6 kA with 5% d.r. 10 kA with 8% d.r. DC only Max. weld period 320 ms/pulse 320 ms/pulse 640 ms/pulse DC: 0,7 ms AC: 0,5 x impuls frequency Rated output current 2 kA 11% d.r. 3 kA 20% d.r. depending on transformer Win. terminal voltage 4 V with 3 kA 4 V with 6 kA 10 V DC: 10 V AC: dep on transformer Interface Secondary connections CU-rails, 2 x M8 internal thread CU-rails, 2 x M8 internal thread Depending on transformer Pressure sensor for proportional valve control valve Analog output Proportional valve control Via D-Sub-9 socket, welding data output in ASCII-compatible printing format Binary interface Binary interface Binary interface a. o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a. o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a. o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a. o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves Acc 50 - 250 Hz AC C5 - 250 Hz AC SA with 8% d.r. 10 AC AV with 8% d.r. 10 AC 20, 50 x impuls frequency AC SU AV with 10 kA AC; dcp on transformer DC: 10 Y AC: depending on transformer	Connected load	11 kVA	11 kVA	22 kVA
Fundamental frequency AC	Switching frequency	max. 20 kHz	max. 14 kHz	
Rated power 12 kVA 24 kVA 40 kVA (DC) Max weld current 3 kA with 5% d.r. 6 kA with 5% d.r. 10 kA with 8% d.r. DC only Min. weld period 20 ms/pulse 0.7 ms 0.7 ms 0.7 ms 0.7 ms 0.7 ms 0.6 kA 20% d.r. depending on transformer Win. terminal voltage 4 V with 3 kA 4 V with 6 kA 10 V 1	Output frequency	40 kHz	26 kHz	1 - 10 kHz (AC) 2 - 10 kHz (DC)
Max weld current 3 kA with 5% d.r. 6 kA with 5% d.r. 10 kA with 8% d.r. DC only Max. weld period 320 ms/pulse 320 ms/pulse 640 ms/pulse Min. weld period 0.7 ms 0.7 ms DC: 0,7 ms AC: 0,5 x impuls frequency Rated output current 2 kA 11% d.r. 3 kA 20% d.r. depending on transformer Min. terminal voltage 4 V with 3 kA 4 V with 6 kA DC: 4 V with 10 kA AC: dep on transformer Max. open-circuit voltage 10 V 10 V DC: 10 V AC: dep on transformer Interface Secondary connections CU-rails, 2 x M8 internal thread Depending on transformer Analog input Pressure sensor for proportional valve control Pressure sensor for proportional valve valve Pressure sensor for proportional valve control Analog output Proportional valve control Proportional valve control Proportional valve control Proportional valve control Digital interfaces via D-Sub-9 socket; welding data output in ASCII-compatible printing format via D-Sub-9 socket; welding data output in ASCII-compatible printing format via D-Sub-9 socket; welding data output in ASCII-compatible printing format Binary interface input a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a.o. step				AC: 50 - 250 Hz
Max. weld period 320 ms/pulse 320 ms/pulse 640 ms/pulse Min. weld period 0.7 ms 0.7 ms DC: 0,7 ms AC: 0,5 x impuls frequency Rated output current 2 kA 11% d.r. 3 kA 20% d.r. depending on transformer Min. terminal voltage 4 V with 3 kA 4 V with 6 kA DC: 4 V with 10 kA AC: dep on transformer Max. open-circuit voltage 10 V 10 V DC: 10 V AC: dep on transformer Interface Secondary connections CU-rails, 2 x M8 internal thread Depending on transformer Analog input Pressure sensor for proportional valve Pressure sensor for proportional valve Pressure sensor for proportional valve Analog output Proportional valve control Proportional valve control Proportional valve control Digital interfaces via D-Sub-9 socket; welding data output in ASCII-compatible printing format via D-Sub-9 socket; welding data output in ASCII-compatible printing format Binary interface input Start, quick stop, pressure switch, proximity switches, pressure sensor Start, quick stop, pressure switch, proximity switches, pressure sensor Binary interface output a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air	Rated power	12 kVA	24 kVA	40 kVA (DC)
Min. weld period 0.7 ms DC: 0,7 ms AC: 0,5 x impuls frequency Rated output current 2 kA 11% d.r. 3 kA 20% d.r. depending on transformer Min. terminal voltage 4 V with 3 kA 4 V with 6 kA DC: 4 V with 10 kA AC: dep on transformer Max. open-circuit voltage 10 V DC: 10 V AC: dep on transformer Interface Secondary connections CU-rails, 2 x M8 internal thread Depending on transformer Analog input Pressure sensor for proportional valve control Pressure sensor for proportional valve control Pressure sensor for proportional valve control Analog output Proportional valve control Proportional valve control Proportional valve control Digital interfaces Via D-Sub-9 socket; welding data output in ASCII-compatible printing format via D-Sub-9 socket; welding data output in ASCII-compatible printing format Binary interface input Start, quick stop, pressure switch, proximity switches, pressure sensor Start, quick stop, pressure switch, proximity switches, pressure sensor Binary interface output a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves	Max weld current	3 kA with 5% d.r.	6 kA with 5% d.r.	10 kA with 8% d.r. DC only
Rated output current 2 kA 11% d.r. 3 kA 20% d.r. depending on transformer DC: 4V with 10 kA AC: dep on transformer Max. open-circuit voltage 10 V 10 V 10 V DC: 10 V AC: dep on transformer CU-rails, 2 x M8 internal thread CU-rails, 2 x M8 internal thread Pressure sensor for proportional valve control Pressure sensor for proportional valve Analog input Pressure sensor for proportional valve control Proportional valve control Proportional valve control Digital interfaces Start, quick stop, pressure sensor Start, quick stop, pressure sensor Start, quick stop, pressure sensor sensor Start, quick stop, pressure sensor a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves output in deviation, closing stroke, welding pressure, air valves OL: 4 V with 10 kA AC: dep on transformer DC: 4 V with 10 kA AC: dep on transformer DC: 10 V AC: dep on transformer Depending on transformer Pressure sensor for proportional valve control Pressure sensor for proportional valve control Proportiona	Max. weld period	320 ms/pulse	320 ms/pulse	640 ms/pulse
Min. terminal voltage 4 V with 3 kA 4 V with 6 kA DC: 4 V with 10 kA AC: dep on transformer Interface Secondary connections CU-rails, 2 x M8 internal thread CU-rails, 2 x M8 internal thread Depending on transformer Pressure sensor for proportional valve Analog input Pressure sensor for proportional valve Proportional valve Analog output Proportional valve control Start, quick stop, pressure switch, proximity switches, pressure sensor Start, quick stop, pressure switch, proximity switches, pressure sensor Binary interface input a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves A V with 10 kA AC: dep on transformer CU-rails, 2 x M8 internal thread CU-rails, 2 x M8 internal thread Depending on transformer Pressure sensor for proportional valve control Proportional valve control Proportional valve control Proportional valve control Via D-Sub-9 socket; welding data output in ASCII-compatible printing format Start, quick stop, pressure switch, proximity switches, pressure switch, proximity switches, pressure sensor Binary interface a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves	Min. weld period	0.7 ms	0.7 ms	
Max. open-circuit voltage Interface Secondary connections CU-rails, 2 x M8 internal thread CU-rails, 2 x M8 internal thread Depending on transformer Pressure sensor for proportional valve Analog input Pressure sensor for proportional valve Analog output Proportional valve control Proportional valve control Via D-Sub-9 socket; welding data output in ASCII-compatible printing format Binary interface input Start, quick stop, pressure switch, proximity switches, pressure sensor a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves Analog output 10 V CU-rails, 2 x M8 internal thread CU-rails, 2 x M8 internal thread CU-rails, 2 x M8 internal thread Depending on transformer Pressure sensor for proportional valve control Proportional valve control Via D-Sub-9 socket; welding data output in ASCII-compatible printing format Start, quick stop, pressure switch, proximity switches, pressure switch, proximity switches, pressure sensor Binary interface a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves Analog output Pressure sensor for proportional valve control Start, quick stop, pressure switch, proximity switches, pressure switch, proximity switches, pressure switch, proximity switches, pressure switch, proximity switches, pressure sensor a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves	Rated output current	2 kA 11% d.r.	3 kA 20% d.r.	depending on transformer
Interface Secondary connections CU-rails, 2 x M8 internal thread CU-rails, 2 x M8 internal thread Depending on transformer Pressure sensor for proportional valve Pressure sensor for proportional valve Analog output Proportional valve control Via D-Sub-9 socket; welding data output in ASCII-compatible printing format Start, quick stop, pressure switch, proximity switches, pressure sensor Start, quick stop, pressure switch, proximity switches, pressure sensor Start, quick stop, pressure switch, proximity switches, pressure sensor a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves Depending on transformer Depending on transformer Pressure sensor for proportional valve via D-Sub-9 socket; welding data output in ASCII-compatible printing format Start, quick stop, pressure switch, proximity switches, pressure sensor Start, quick stop, pressure switch, proximity switches, pressure sensor a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves	Min. terminal voltage	4 V with 3 kA	4 V with 6 kA	
Secondary connections CU-rails, 2 x M8 internal thread CU-rails, 2 x M8 internal thread Depending on transformer Pressure sensor for proportional valve Proportional valve control Proportional valve control Proportional valve control Proportional valve control Via D-Sub-9 socket; welding data output in ASCII-compatible printing format Start, quick stop, pressure switch, proximity switches, pressure sensor Start, quick stop, pressure switch, proximity switches, pressure sensor Start, quick stop, pressure switch, proximity switches, pressure sensor a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves CU-rails, 2 x M8 internal thread Depending on transformer Pressure sensor for proportional valve Proportional valve control Via D-Sub-9 socket; welding data output in ASCII-compatible printing format Start, quick stop, pressure switch, proximity switches, pressure switch, proximity switches, pressure sensor a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves		10 V	10 V	DC: 10 V AC: dep on transformer
CO-Falls, 2 x M8 Internal thread	Interface			
Analog output Proportional valve control via D-Sub-9 socket; welding data output in ASCII-compatible printing format Start, quick stop, pressure switch, proximity switches, pressure sensor Start, quick stop, pressure switch, proximity switches, pressure sensor Start, quick stop, pressure switch, proximity switches, pressure sensor a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves valve Proportional valve control Via D-Sub-9 socket; welding data output in ASCII-compatible printing format Start, quick stop, pressure switch, proximity switches, p		CU-rails, 2 x M8 internal thread	CU-rails, 2 x M8 internal thread	Depending on transformer
Digital interfaces via D-Sub-9 socket; welding data output in ASCII-compatible printing format Start, quick stop, pressure switch, proximity switches, pressure sensor Binary interface input Binary interface output a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves via D-Sub-9 socket; welding data output in ASCII-compatible printing format Start, quick stop, pressure switch, proximity switches, pressure switch, proximity switches, pressure sensor Start, quick stop, pressure switch, proximity switches, pressure switch, proximity switches, pressure sensor a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves via D-Sub-9 socket; welding data output in ASCII-compatible printing output in AS	Analog input			
Digital interfaces output in ASCII-compatible printing format Start, quick stop, pressure switch, proximity switches, pressure sensor Binary interface input Binary interface output a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves output in ASCII-compatible printing format Start, quick stop, pressure switch, proximity switches, pressure switch, proximity switches, pressure switch, proximity switches, pressure sensor a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves	Analog output	Proportional valve control	Proportional valve control	Proportional valve control
Binary Interface input proximity switches, pressure sensor proximity switches, pressure sensor a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves proximity switches, pressure switch, proximity switches, pressure sensor a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves	Digital interfaces	output in ASCII-compatible printing	output in ASCII-compatible printing	output in ASCII-compatible
Binary interface output a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves set point deviation, closing stroke, welding pressure, air valves valves		proximity switches, pressure	proximity switches, pressure	switch, proximity switches,
Operation		point deviation, closing stroke,	point deviation, closing stroke,	set point deviation, closing stroke, welding pressure, air
	Operation			

Cooling	Forced air ventilation, temperature controlled	Forced air ventilation, temperature controlled	Transformer water cooled
Moisture	40 - 70 %, not condensating	40 - 70 %, not condensating	40 - 70 %, not condensating
Ambient Temperature	0 - 40°C	0 - 40°C	0 - 40°C
	IS-Q3000A	IS-Q6000A	IS-Q250A
Weight inverter	approx 33 kg	approx 43 kg	approx 20 kg (without transforner)
Dimensions inverter (BxHxW)	216 x 420 x 480 mm 216 x 420 x 550 mm (including projection) ISQ20-MFC-19": 482 x 174 x 315 mm	216 x 420 x 480 mm 216 x 420 x 550 mm (including projection) ISQ20-MFC-19": 482 x 174 x 315 mm	216 x 420 x 480 mm 216 x 420 x 550 mm (including projection) ISQ20-MFC-19": 482 x 174 x 315 mm
Weight transformer			IT-60X: approx 16 kg TRM3: approx 45 kg MT-40X-530: approx 63 kg
Dimensions transformer (BxHxW) in mm			TRM3: 360 x 150 x 185 IT-60X: 284 x 110 x 170 MT-40X-530: 732 x 92 x235



Specifications IS-Q Series - Inverter Power Supply (formerly known as ISQ Series) 2/2

	IS-Q500A
Performance range	20 kA
Weld current types	
Features	Inverter with integrated power on button, Performance and Control Electronics, Voltage control cable und removable Display MFT1 (optional: AWS3-Display) and additional: Separate DC- or AC-transformer, external main fuse and net filter
Options	19" plug-in unit without main unit
Control / control mode	Current, voltage or power feedback control, independently adjustable independently for each pulse, APC (Active Part Conditioner) function and current, voltage, performance and energy limits
Programmable weld schedules / external weld schedule selection	99 at single axis; 49 per head at dual axis
# of weld pulses	1st and/or 2nd pulse, 2nd pulse can be repeated max 10 times (decrease adjustable down to 1% of 2nd pulse)
Weld pulse control	Up slope, weld-time, down-slope, break time, impuls cycle
Current measurement	external toroidal coil
Voltage measurement	Potential free, external connection (X10 axis/head 1; X11 axis/head 2)
Limit values	Display with limit exceeding upper and lower limit, time limit, welding energy limit with sensitive components (weld to limit)
Out of limit error message	Text indication with limit and device errors; monitoring limits for U, I or P; $+$ and $-$ tolerance windows individually adjustable
Parts check	Test pulse for part detection (pre-weld-check)
Operation	One button toggle wheel, monochrome display, Optional: coloured OP-AWS3-A Display, Profibus or Ethernet IP
EU Certification	CE Compliant
Continuous sound pressure level	The equivalent continuous sound pressure level rated A is below 70 dB. Sound pressure levels may vary depending on the welding material and the environmental conditions. If necessary consult an acoustic specialist.
Electrical data	
Supply voltage	3x 400 VAC, ± 10%, PE
Mains frequency	50 - 60 Hz
Fusing	3 x 125A, delayed (external)
Connecting cable	4 x 50 mm² shielded
Protection class	IP30 ISQ20-MFC 19": depending on housing
Welding transformer	External: DC: IT-113 AC: upon request
Power data	IS-Q500A
Connected load	85 kVA
Switching frequency	1 – 10 kHz (AC) 1 – 5 kHz (DC) depending on primary current
Output frequency	1 – 10 kHz (AC) 2 – 10 kHz (DC)
Fundamental frequency AC	AC: 50 - 250 Hz
Rated power	25 kVA (AC), DC with IT 113: 75 kVA; dep on transformer
Max weld current	20 kA with 15% d.r. DC only

Max. weld period	320 ms/pulse
•	•
Min. weld period	DC: 0,7 ms AC: 0,5 x impuls frequency
Rated output current	depending on transformer
Min. terminal voltage	DC with IT 113: 3 V at 25 kA; AC: dep on transformer
Max. open-circuit voltage	DC: 11 V AC: dep on transformer
Interface	
Secondary connections	Depending on transformer
Analog input	Pressure sensor for proportional valve
Analog output	Proportional valve control
Digital interfaces	via D-Sub-9 socket; welding data output in ASCII-compatible printing format
Binary interface input	Start, quick stop, pressure switch, proximity switches, pressure sensor
Binary interface output	a.o. stepping contact, counter, set point deviation, closing stroke, welding pressure, air valves
Operation	
Cooling	Inverter and transformer water cooled
Moisture	40 - 70 %, not condensating
Ambient Temperature	0 - 40°C
	IS-Q500A
Weight inverter	approx 31 kg (without transforner etc)
Dimensions inverter (BxHxW)	216 x 420 x 480 mm 216 x 420 x 550 mm (including projection) ISQ20-MFC-19": 482 x 174 x 315 mm
Weight transformer	IT-113: approx 25,5 kg
Dimensions transformer (BxHxW) in mm	IT-113: 420 x 125 x 230



Product applications IS-Q Series - Inverter Power Supply (formerly known as ISQ Series)





Stranded wire to Coil Motor Fusing

Stranded wire to terminal



OUR TECHNOLOGIES









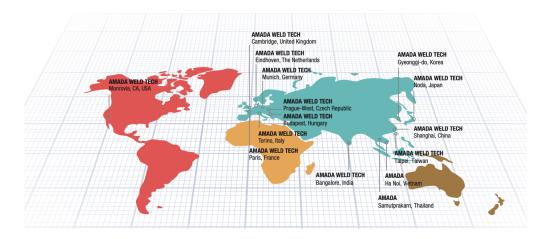








OUR SALES OFFICES





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