

With all the advantages of 1Torch® and proven Thermal Dynamics reliability, the A-Series delivers the best in productivity, precision and performance.

- **Powerful duty cycle**

Powerful 80% Duty Cycle to handle all-day production cutting in the toughest environments.

- **Proven 1Torch technology**

The A-Series systems include the SL100® SV 1Torch start technology eliminating the electronic interference that can occur with other designs. The 1Torch provides quick, reliable starts and a strong pilot arc to pierce heavy plate. With auto-pilot restart, it can also cut expanded metal quickly and easily.

- **Power factor correction (A40i & A60i only)**

Lower your overall current draw and power consumption with built-in PFC technology which results in lower cutting costs.

- **Durable LED display (A40i & A60i only)**

The system's large, high-visibility display allows for easy viewing of all machine settings from a distance. The intuitive, easy-to-use display instantly provides the necessary feedback for keeping your settings and cut quality optimised.

- **Gas optimiser**

This unique technology precisely regulates air pressure, ensuring premium cut quality and performance. simply select amperage, torch type, torch lead length, and mode of operation and receive visual prompts to adjust gas pressure accordingly while retaining the flexibility to make fine adjustments.

- **Consumables end-of-life indicator**

The end-of-life indicator monitors the remaining life of the consumable parts and alerts you when it is time to replace, maintaining optimal performance and cut quality.

- **Smallest footprint and weight in its class.**

Easy to install on gantries without affecting the dynamics of the cutting machine. Long torch leads packages are no longer necessary.

- **Marking capabilities (A40i & A60i only)**

Ideal for marking plates with part identifications numbers or welding lines. Argon or air can be used depending on the application.

- **Ohmic sensing through the tip**

No need for ohmic clips and wires. Exposed tips can be used for better cut quality, especially beneficial for thinner plate.

- **Fully-featured CNC interface**

No need for a separate voltage divider board for ohmic sensing. Thermal Dynamics iCNC Performance or similar CNC systems can be connected directly.

- **Dedicated valve-in-torch design**

Valve-in-torch design reduces cycle time between parts and increases productivity.

- **Automated torch status detection**

Software automatically detects the torch that is attached and switches between automation and manual modes.

- **Dedicated automation software for better performance**

Dedicated automation software improves cycle time and performance in many applications.

- **1Torch cable length options**

The SL100 SV Torch comes with standard ATC Quick Disconnect in lengths of 7.6 m, 10.7 m and 15.2 m. Longer torch leads up to 30.5 m are available.



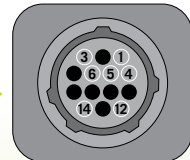
Features - A40i / A60i

Front Panel Controls

- Large Numeric Display for Cutting current and status messages
- Mode selection
- Current control
- Consumables end of life indicator
- Gas pressure indicator
- Torch type and lead length indicator

ATC® Quick Disconnect

- Torch detection allows fast change from an automation torch to a hand torch



CNC Interface Connector on Rear of Power Supply

- 3, 4 Plasma Start/Stop Signal
- 5, 6 Divided Arc voltage
- 10, 11, 13 Plate contact for Ohmic sensing
- 12, 14 Ok-to-Move

- Standard Keyhole Mounting Feet

- Dinse style Quick disconnect work cable

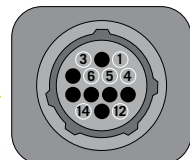
Features - A80/ A120

Front Panel Controls

- Power Switch
- Mode Selection
- Current Control
- Pressure control
- Status display LEDs
- Pressure / Error indicators

ATC® Quick Disconnect

- Torch detection allows fast change from an automation torch to a hand torch



CNC Interface Connector on Rear of Power Supply

- 3, 4 Plasma Start/Stop Signal
- 5, 6 Divided Arc voltage
- 10, 11, 13 Plate contact for Ohmic sensing
- 12, 14 Ok-to-Move

- Standard Keyhole Mounting Feet

Specifications

	A40i	A60i	A80	A120
Rated Output	40 Amps	60 Amps	80 Amps	120 Amps
Output Range	20 - 40 Amps, 60 Amps Max., Adjustable	20 - 60 Amps, 80 Amps Max., Adjustable	30 - 80 Amps, 100 Amps Max., Adjustable	30 - 120 Amps, 120 Amps Max., Adjustable
Production Piercing and Cutting Capacity	6 mm	10 mm	12 mm	15 mm
Maximum Piercing and Cutting Capacity	12 mm	15 mm	20 mm	20 mm
Maximum Edge Start	25 mm	25 mm	30 mm	40 mm
Input Volts	380/400V, 3 ph, 50/60 Hz	380/400V, 3 ph, 50/60 Hz	380/400V, 3 ph, 50/60 Hz	380/400V, 3 ph, 50/60 Hz
Input Amps @ Max Output	7.7 (380V, 3 ph) 7.4 (400V, 3 ph)	12.9 (380V, 3 ph) 12.3 (400V, 3 ph)	29 (380V, 3 ph) 28 (400V, 3 ph)	35 (380V, 3 ph) 36 (400V, 3 ph)
Kilowatt Output	4.8 kW	7.9 kW	12 kW	15.4 kW
Duty Cycle	80% @ 40 Amps 100% @ 30 Amps	80% @ 60 Amps 100% @ 50 Amps	80% @ 80 Amps 100% @ 70 Amps	80% @ 120 Amps 100% @ 100 Amps
MAX OCV	300 VDC	300 VDC	260 VDC	260 VDC
Gas Type	Air@ 5.2 bar @ 189 lpm Argon (Marking) @ 5.2 bar @ 189 lpm	Air@ 5.2 bar @ 189 lpm Argon (Marking) @ 5.2 bar @ 189 lpm	Air @ 5.2 bar @ 189 lpm	Air @ 5.5 bar @ 189 lpm
Pilot	Start Cartridge	Start Cartridge	Start Cartridge	Start Cartridge
Weight	15.9kg - Unit, Power Cable, (Torch and Leads)	15.9kg - Unit, Power Cable, (Torch and Leads)	28.6kg - Unit, Power Cable, (Torch and Leads)	28.6kg - Unit, Power Cable, (Torch and Leads)
Dimensions	H 359 mm x W 199 mm x L 536 mm	H 359 mm x W 199 mm x L 536 mm	H 343 mm x W 248 mm x L 660 mm	H 343 mm x W 248 mm x L 660 mm
Work Cable	6.1m	6.1 m	6.1 m	6.1 m
Control	CNC rear panel connector: Start/Stop, OK to Move, Divided arc voltage, Plate contact.	CNC rear panel connector: Start/Stop, OK to Move, Divided arc voltage, Plate contact.	CNC rear panel connector: Start/Stop, OK to Move, Divided arc voltage, Plate contact.	CNC rear panel connector: Start/Stop, OK to Move, Divided arc voltage, Plate contact.
Input Power Cable	2 m without plug (400V)	2 m without plug (400V)	2 m without plug (400V)	2 m without plug (400V)
Warranty	3 Years Power Supply & 1 Year Torch	3 Years Power Supply & 1 Year Torch	3 Years Power Supply & 1 Year Torch	3 Years Power Supply & 1 Year Torch
Certifications	IP-23C, CSA, NTRL/C, CE, CCC	IP-23C, CSA, NTRL/C, CE, CCC	IP-23C, CSA, NTRL/C, CE, CCC	IP-23C, CSA, NTRL/C, CE, CCC
Torch Configuration				
Torch	SL100®SV w/ATC®, 180° Automation			
SL100SV - 7.6m Leads	1-5634-4	1-6634-4	1-1334-4	1-1734-4
SL100SV - 10.6m Leads	1-5636-4	1-6636-4	1-1336-4	1-1736-4
SL100SV - 15.2m Leads	1-5635-4	1-6635-4	1-1335-4	1-1735-4

*Systems include: power supply, automation torch with 35 mm diameter non-metallic mounting tube / 32 pitch rack (detachable), pinch block assembly, CNC interface cable, spare parts kit (15 tips, 3 electrodes, start cartridge), input power cable (selected systems), work cable, and clamp.

(subject to change without notice)

Cut Speed Charts

Cut Speed Chart - Mild Steel				Cut Speed Chart - Stainless Steel				Cut Speed Chart - Aluminium			
Amps	Plasma/Shield	Thickness [mm]	Speed mm/min	Amps	Plasma/Shield	Thickness [mm]	Speed mm/min	Amps	Plasma/Shield	Thickness [mm]	Speed mm/min
40	Air/Air	1	3990	40	Air/Air	2	1140	40	Air/Air	2	3500
		2	2920			3	980			3	2350
		3	1810			5	715			5	1740
		5	1345			6	2865			4	5230
60	Air/Air	4	3650	60	Air/Air	6	1790	60	Air/Air	6	2640
		6	2145			10	725			10	1085
		10	1180			12	580			12	845
		12	795			6	2765			6	3190
80	Air/Air	6	2745	80	Air/Air	10	1070	80	Air/Air	10	1330
		10	1060			12	765			12	1060
		12	1025			10	1575			15	745
		15	610			12	1255			10	1575
100	Air/Air	10	1790	100	Air/Air	15	685	100	Air/Air	12	1255
		12	1310			10	2390			20	470
		20	490			12	1750			10	2660
		10	2100			15	1160			12	2100
120	Air/Air	12	1860					120	Air/Air	15	1445
		15	1320								
		20	720								

Note: The cutting speed chart includes preliminary data and is subject to change without notice. Take care in comparison. The speeds noted above are best cut speeds. Often, competitors show maximum cutting speeds. Although much higher speeds can be achieved, edge quality and bevel angle may be compromised. The capabilities shown in this table were obtained by using new consumables, correct gas and current settings, accurate torch height control and with the torch perpendicular to the workpiece. Please contact Thermal Dynamics for more information.