

# Hypertherm®

## powermax1650® G3 SERIES™

**Handheld or mechanized plasma system for cutting and gouging metal**

	Thickness	Cut speed
Handheld cut capacity		
Recommended	32 mm	500 mm/min
	38 mm	250 mm/min
Severance	44 mm	125 mm/min
Pierce	22 mm*	
* Pierce rating for handheld use or with automatic torch height control		
	Metal removal rate	Groove profile
Gouge capacity		
	9,8 kg per hour	6,6 mm D x 7,1 mm W

### Key power supply advantages

- Auto-voltage™ automatically adapts to any incoming power from 200 V – 600 V, 3-phase.
- Boost Conditioner™ compensates for input voltage variations, providing improved performance on low-line voltage, on motor generators and on fluctuating input power.
- Reliability-focused design improves uptime and maximizes return on investment.
- CNC interface and Easy Torch Removal (ETR™) provide increased versatility for handheld and mechanized usage.

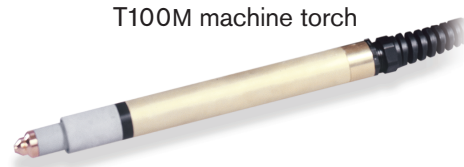
### Key torch advantages

- Coaxial-assist™ jet technology delivers fast cut speeds.
- HyLife® electrode extends consumable life and lowers operating cost.
- Patented nozzle shielding enables “drag cutting” directly along the surface of the workpiece – no standoff is needed.

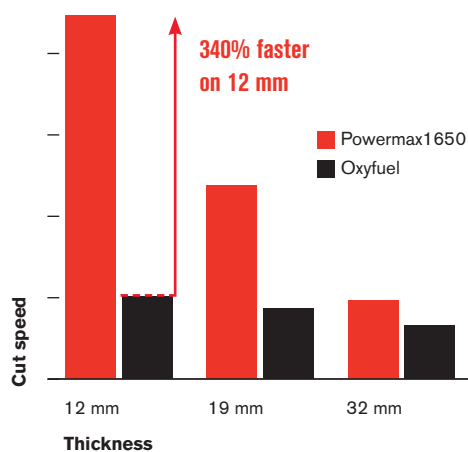


T100 hand torch

T100M machine torch



### Relative cut performance on mild steel



## Specifications

Input voltages	CSA 200 – 600 V, 3-PH, 50/60 Hz CE 230 – 400 V, 3-PH, 50/60 Hz
Input current @ 16 kW	CSA 200/208/230/240/400/480/600 V, 3-PH 53/51/46/44/27/22/21 A CE 230/380/400 V, 3-PH 46/26/27 A
Output current	30 – 100 A
Rated output voltage	160 VDC
Duty cycle @ 40° C	CSA 60% @ 100 A, 200 – 208 V, 3-PH 70% @ 100 A, 230 – 240 V, 3-PH 80% @ 100 A, 380 – 600 V, 3-PH 100% @ 80 A, 200 – 208 V, 3-PH 100% @ 85 A, 230 – 240 V, 3-PH 100% @ 90 A, 400 – 600 V, 3-PH CE 70% @ 100 A, 230 – 240 V, 3-PH 80% @ 100 A, 380 – 415 V, 3-PH 100% @ 85 A, 230 – 240 V, 3-PH
Open circuit voltage (OCV)	160 VDC
Dimensions with handles	671 mm D; 427 mm W; 655 mm H
Weight with 7,6 m torch	CSA 64 kg CE 65 kg
Gas supply	Clean, dry, oil-free air or nitrogen
Recommended gas inlet flow rate / pressure	Cutting: 260 l/min @ 5,1 bar Gouging: 260 l/min @ 4,8 bar
Input power cable length	3 m
Power supply type	Inverter – IGBT

## Engine-driven generator operation

Engine drive rating (kW)	System output (amps)	Performance (arc stretch)
30	100	Full
22,5	100	Limited
22,5	80	Full
15	80	Limited
15	60	Full

## Cut chart

Material	Thickness (mm)	Current (amps)	Maximum cut speed <sup>1</sup> (mm/min)
Mild steel	3	40	3835
	6	60	3353
	12	100	2235
	19	100	1194
	25	100	711
	32	100	482
Stainless steel	2	40	5613
	6	60	2794
	12	100	2007
	19	100	991
	25	100	584
	32	100	356
Aluminum	3	40	5182
	6	60	3683
	12	100	2743
	19	100	1448
	25	100	838

<sup>1</sup> Maximum cut speeds are the results of Hypertherm's laboratory testing. For optimum cut performance, actual cutting speeds may vary based on different cutting applications. Refer to the operator manual for more details.

## Ordering information

Input voltages	Handheld systems			Mechanized systems		
	Power supply with CPC port					
	T100 torch 7,6 m	T100 torch 15 m	T100 torch 23 m	T100m torch 7,6 m	T100m torch 15 m	T100m torch 23 m
200 – 600 V CSA <sup>2</sup>	059275	059276	059301	059279	059280	059303
230 – 400 V CE <sup>3</sup>	059288	059289	059302	059290	059291	059304

<sup>2</sup> For use in the Americas and Asia, except China.

<sup>3</sup> For use in countries that require CE, CCC or GOST marks.

## Custom configurations (select power supply, torch, and other components)

### Power supply options

	Power supply with CPC port and 7,6 m work cable with hand clamp	Power supply with CPC port, 50:1 voltage ratio and 7,6 m work cable with hand clamp
200 – 600 V CSA	059266	059318
230 – 400 V CE	059267	059319

### Component options

Cable length	Torches			Work cables	Control cables		
	T100	T100M without gear rack	T100M with gear rack		Remote pendant	CNC spade plug <sup>4</sup>	CNC spade plug <sup>5</sup>
7,6 m	059264	059333	059315	123654	128650	123966	023206
10,7 m		059334	059324				
15 m	059270	059335	059325	123655	128651	123967	023279
23 m	059299	059336	059326		128652		

<sup>4</sup> For use with automation equipment that requires divided arc voltage.

<sup>5</sup> For use when divided arc voltage is not required.

## Torch consumable parts

Nozzles and electrodes are available in various quantities. Contact your distributor for more information.

Consumable type	Torch type	Amperage	Nozzle	Shield/Deflector	Retaining cap	Electrode	Swirl ring
Drag-cutting	Hand	40	120932	120929	120928	120926	120925
		60	120931				
		80	120927				
		100	220011	220065	220048	220037	220051
		Mechanized	Machine	40	120932	120930	120928 or 220061 (ohmic)
60	120931						
80	120927						
100	220011			220047	220048 or 220206 (ohmic)	220037	220051
Unshielded	Machine			40	220006	120979	120928 or 220061 (ohmic)
		60	220007				
		80	120980				
		100	220064	220048 or 220206 (ohmic)	220037		220051
		FineCut	Hand	30 – 50	220329		220325
Machine	30 – 50		120979	120925			
Gouging	Hand/	60 – 80	220059	120977	120928	120926	120925
	Machine	100					



This system meets the RoHS directive restricting the use of lead, mercury, cadmium and other hazardous compounds.

ISO 9001:2008

Power supplies have a 3-year warranty and torches have a 1-year warranty.

# Hypertherm®

## Cut with confidence™

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For more information, contact your authorized Hypertherm dealer or visit [www.hypertherm.com](http://www.hypertherm.com).

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