

Hypertherm®

powermax1650® G3 SERIES™

Handheld or mechanized plasma system for cutting and gouging metal

	Thickness	Cut speed
Handheld cut capacity		
Recommended	1-1/4" (32 mm)	20 ipm (500 mm/min)
	1-1/2" (38 mm)	10 ipm (250 mm/min)
Severance	1-3/4" (44 mm)	5 ipm (125 mm/min)
	Pierce capacity (handheld or mechanized with torch height control)	
	7/8" (22 mm)	
	Metal removal rate	Groove profile
Gouge capacity		
	21.8 lbs. (9.8 kg) per hour	.26" (6.6 mm) D x .28" (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.

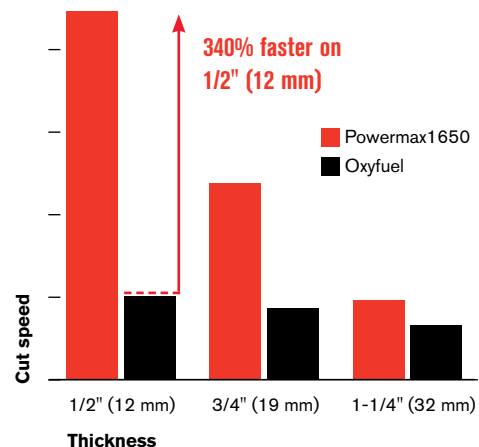


T100 hand torch

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 (104° F)	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	26.4" (671 mm) D; 16.8" (427 mm) W; 25.8" (655 mm) H
Weight with 25' (7.6 m) torch	CSA 141 lbs (64 kg) CE 144 lbs (65 kg)
Gas supply	Clean, dry, oil-free air or nitrogen
Recommended gas inlet flow rate / pressure	Cutting: 550 scfh, 9.2 scfm (260 l/min) @ 75 psi (5.1 bar) Gouging: 550 scfh, 9.2 scfm (260 l/min) @ 70 psi (4.8 bar)
Input power cable length	10' (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		Current (amps)	Maximum cut speed ¹	
	(inches)	(mm)		(ipm)	(mm/min)
Mild steel	10 GA	3	40	151	3835
	1/4	6	60	132	3353
	1/2	12	100	88	2235
	3/4	19	100	47	1194
	1	25	100	28	711
	1 1/4	32	100	19	482
Stainless steel	14 GA	2	40	221	5613
	1/4	6	60	110	2794
	1/2	12	100	79	2007
	3/4	19	100	39	991
	1	25	100	23	584
	1 1/4	32	100	14	356
Aluminum	1/8	3	40	204	5182
	1/4	6	60	145	3683
	1/2	12	100	108	2743
	3/4	19	100	57	1448
	1	25	100	33	838

¹ 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 25' (7.6 m)	T100 torch 50' (15 m)	T100 torch 75' (23 m)	T100m torch 25' (7.6 m)	T100m torch 50' (15 m)	T100m torch 75' (23 m)
200 – 600 V CSA ²	059275	059276	059301	059279	059280	059303
230 – 400 V CE ³	059288	059289	059302	059290	059291	059304

² For use in the Americas and Asia, except China.

³ 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 25' (7.6 m) work cable with hand clamp	Power supply with CPC port, 50:1 voltage ratio and 25' (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 ⁴	CNC spade plug ⁵
25' (7.6 m)	059264	059333	059315	123654	128650	123966	023206
35' (10.7 m)		059334	059324				
50' (15 m)	059270	059335	059325	123655	128651	123967	023279
75' (23 m)	059299	059336	059326		128652		

⁴ For use with automation equipment that requires divided arc voltage.

⁵ 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)	120926	120925
		60	120931				
		80	120927				
		100	220011	220047	220048 or 220206 (ohmic)	220037	220051
Unshielded	Machine	40	220006	120979	120928 or 220061 (ohmic)	120926	120925
		60	220007				
		80	120980				
		100	220064				
FineCut	Hand	30 – 50	220329	220325	120928 or 220061 (ohmic)	120926	220327
	Machine	30 – 50		120979			120925
Gouging	Hand/	60 – 80	220059	120977	120928	120926	120925
	Machine						



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



Engineered and assembled in the USA

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

ISO 9001:2008

Hypertherm[®]

Cut with confidence[™]

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