

Powermax1650



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

Operating data

	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.)
Mechanized pierce capacity		
	3/4" (19 mm)	
Metal removal rate		
Gouge capacity		
24 lbs. (10.8 kg) per hour		
Groove profile		
3/16" (5 mm) D x 1/8" (3 mm) W		

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Specifications

Input Voltages	CSA 200 - 600 V, 3-PH, 50/60 Hz, CSA CE 230 - 400 V, 3-PH, 50/60 Hz, CE
Input Current @16 kW	200/208/230/240/400/480/600 V, 3-PH; 53/51/46/44/27/22/21 A
Output current	30 - 100 A
Rated output voltage	160 VDC
Duty cycle @ 40°C (104°F)	60% @ 200 – 208 V 70% @ 230 – 240 V 80% @ 400 – 600 V
Output for 100% duty cycle @ 40°C (104° F)	80 A @ 200 – 208 V 85 A @ 230 – 240 V 90 A @ 400 – 600 V
Maximun OCV	300 VDC
Dimensions with handles	26.4" (671 mm) D; 16.8" (427 mm) W; 25.8" (655 mm) H
Weight with torch	135 lbs (61 kg)
Gas Supply	Clean, dry, oil-free air or nitrogen
Flow rate	550 schf, 9.2 cfm (260 l/min) @ 90 psi (6.2 bar)
Flow pressure	75 psi (5.1 bar) flowing, 25' leads 80 psi (5.4 bar) flowing, 50' leads
Input power cable length	20' (6 m)
Work cable length	15' (4.5 m)

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	80	Full

Cut Chart

Material	Thickness		Current amps	Maximum cut speed*	
	inches	mm		ipm	mm/min
Mild Steel	26 GA	0.5	30	638	16205
	10 GA	3.4	40	151	3835
	1/4	6.4	60	132	3353
	1/2	12.7	100	88	2235
	3/4	19.0	100	47	1194
	1	25.4	100	28	711
	1-1/4	31.8	100	19	482
Aluminum	1/32	.8	30	610	15494
	1/8	3.2	40	204	5182
	1/4	6.4	60	145	3683
	1/2	12.7	100	108	2743
	3/4	19.0	100	57	1448
	1	25.4	100	33	838
Stainless Steel	26 GA	0.5	30	631	16027
	14 GA	1.9	40	221	5613
	1/4	6.4	60	110	2794
	1/2	12.7	100	79	2007
	3/4	19.0	100	39	991
	1	25.4	100	23	584
	1-3/4	31.8	100	14	356

* 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.