HYPERTHERM®
A Hypertherm Associates Brand

Powermax45 SYNC

Recommended cut capacity of 16 mm (5/8")
Severance capacity of 29 mm (1 1/8")
Professional grade

Part of the Powermax® family, the Powermax45 SYNC features advanced torch communication for automated setup and patented single-piece cartridges for hand cutting, mechanized or robotic cutting, marking, or gouging.

Key business benefits

Simplify operations and boost productivity
Single-piece cartridge simplifies operations and dramatically reduces training time

Minimize operating costs
Up to 5x longer consumable life compared to competitors decreases operating costs

Reduce secondary operations
Improved cut quality over consumable life delivers better part consistency to reduce secondary operations

Cut and gouge capacities

Cut capacity	Thickness	Cut speed
Recommended	16 mm (5/8")	500 mm/min (20 ipm)
Severance (hand cutting)	29 mm (1–1/8")	125 mm/min (5 ipm)
Pierce*	12 mm (1/2")	
*Pierce rating for handheld use or with automatic torch height control		
Gouge capacity	**Metal removal rate**	**Groove profile**
Typical gouge	3.4 kg (7.5 lbs) per hour	3.2 mm (.12") D x 6,8 mm (.26") W

Torch output**	6.9 kW
	45 A x 155 V ÷ 1000 W = 6.9 kW

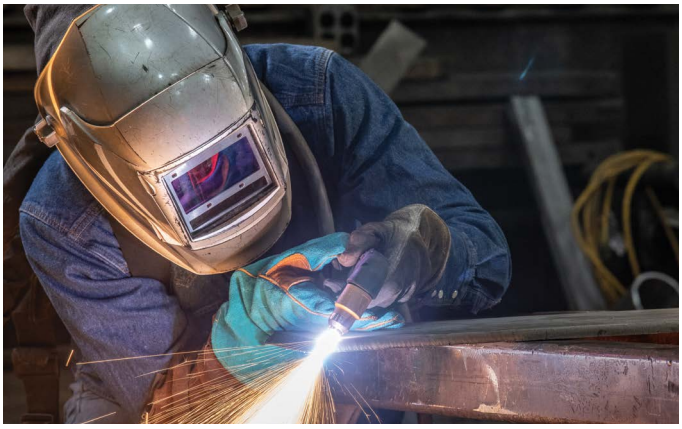
**Higher output voltage at the torch plus efficiently designed consumables result in a faster, cleaner cut.

Easy to use. Versatile. Reliable.

For metal workers who want the most versatile system available to gouge, cut, and mark, Powermax45 SYNC delivers the best return on investment with a patented single-piece cartridge, up to 5x longer consumable life, and greater cutting power than higher-amperage competitors.

Our proprietary single-piece, color-coded cartridges help operators eliminate mix-ups, simplify inventory management, and decrease operating costs.

THE BEST INVESTMENT IS IN YOUR POWER



Highlighted product features:

Easy to use

- A patented single-piece cartridge eliminates operator error and simplifies operations
- Advanced torch communication for automated setup improves cut quality
- Easy to set up for mechanized usage with optional CNC interface and FastConnect™ torch connection

Versatile

- Gain greater cutting power than higher-amperage competitors
- Expand application capabilities with a wide variety of specialty cartridges and torches
- Cut and mark using the same FineCut® cartridge

Industry-leading reliability

- Powermax plasma cutters are known to last decades in the field, minimizing maintenance and downtime
- SmartSYNC® torches are engineered for rugged industrial environments
- Each Powermax component is tested to perform reliably in demanding conditions

Our customers' preferred cutting tool for industries including:

- Job shops/fabricators
- Property/plant maintenance
- HVAC/mechanical contracting
- Educational/trade schools
- Agricultural/equipment maintenance

Specifications – CSA

Input voltages (± 10%)	200–240 V, 1-PH, 50/60 Hz
	480 V, 3-PH, 50/60 Hz
Input current @ 6.9 kW	200–240 V, 1-PH, 39/32 A
	480 V, 3-PH, 10 A
Output current	9–45 A
Rated output voltage	155 VDC
Duty cycle @ 40° C (104° F)	50% @ 45 A, 200–240 V, 1-PH
	60% @ 41 A, 200–240 V, 1-PH
	100% @ 32 A, 200–240 V, 1-PH
	50% @ 45 A, 480 V, 3-PH
	60% @ 41 A, 480 V, 3-PH
	100% @ 32 A, 480 V, 3-PH
Open circuit voltage (OCV)	275 VDC 200–240 V
	275 VDC 480 V
Weight with 6.1 m (20') torch	14 kg (31 lbs.)

CSA – for use in the Americas and Asia, except China

Specifications – CE/CCC

Input voltages (± 10%)	230 V, 1-PH, 50/60 Hz
	400 V, 3-PH, 50/60 Hz
Input current @ 6.9 kW	230 V, 1-PH, 33 A
	400 V, 3-PH, 10 A
Output current	9–45 A
Rated output voltage	155 VDC
Duty cycle @ 40° C (104° F)	50% @ 45 A, 230 V, 1-PH
	60% @ 41 A, 230 V, 1-PH
	100% @ 32 A, 230 V, 1-PH
	50% @ 45 A, 400 V, 3-PH
	60% @ 41 A, 400 V, 3-PH
	100% @ 32 A, 400 V, 3-PH
Open circuit voltage (OCV)	275 VDC 200–240 V
	265 VDC 400 V
Weight with 6.1 m (20') torch	15 kg (33 lbs.)

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China.

Dimensions with handles	442 mm (17.4") D; 173 mm (6.8") W; 357 mm (14.1") H
Gas supply	Cutting: air (clean, dry and oil-free), nitrogen, F5
	Gouging: air (clean, dry and oil-free), nitrogen, F5
	Marking: air (clean dry and oil-free)
Recommended gas inlet flow rate/ pressure	188 l/min @ 5.9 bar (400 scfh 6.7 scfm @ 90 psi)
Input power cable length	3 m (10')
Power supply type	Inverter – IGBT
Engine drive requirement	12.5 kVA (10 kW) for full 45 A output
Electrical efficiency	90%
Recyclability	100%
Warranty	Power supply: 6-year, Torch: 1-year

Ordering information – CSA

Below are the standard system configurations, which include a power supply, torch or torches, work cable, product information, and 1–2 cartridges.

CSA – for use in the Americas and Asia, except China	75° hand torch		75° and 15° hand torch	180° full-length machine torch			180° full-length machine torch and 75° hand torch
Torch lead length	6.1 m (20')	15.2 m (50')	6.1 m (20') and 7.6m (25')	7.6 m (25')		15.2 m (50')	7.6m (25') and 6.1 m (20')
✔ = With remote pendant					✔		✔
Powermax45 SYNC® power supplies	**Handheld**			**Mechanized**			
200–240 V CSA standard power supply	088560	088561	088564				
200–240 V CSA power supply with CPC port and voltage divider	088562	088563		088580	088582	088581	088583
200–240 V CSA power supply with CPC port, voltage divider board, and serial port				088584		088588	

Custom configurations – CSA

Select power supply, torch, work cable, cartridge, and other components.

Power supply options	Standard	With CPC port and voltage divider	With CPC port, voltage divider and serial port
Powermax45 SYNC 230V CSA	088570	088571	088572
Powermax45 SYNC 480V CSA	088573		

Ordering information – CE/CCC

Below are the standard system configurations, which include a power supply, torch or torches, work cable, product information, and 1–2 cartridges.

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China.	75° hand torch		75° and 15° hand torch	180° full-length machine torch			180° full-length machine torch and 75° hand torch
Torch lead length	6.1 m (20')	15.2 m (50')	6.1 m (20') and 7.6m (25')	7.6 m (25')		15.2 m (50')	7.6m (25') and 6.1 m (20')
✔ = With remote pendant					✔		✔
Powermax45 SYNC® power supplies	**Handheld**			**Mechanized**			
400 V CE/CCC standard power supply	088565	088566					
400 V CE/CCC power supply with CPC port and voltage divider	088567			088585		088586	
230 V CE/CCC standard power supply	088568						
230 V CE/CCC power supply with CPC port and voltage divider	088569			088587			

Custom configurations – CE/CCC

Select power supply, torch, work cable, cartridge, and other components.

Power supply options	Standard	With CPC port and voltage divider	With CPC port, voltage divider and serial port
Powermax45 SYNC 400 V CE/CCC	088574	088575	088576
Powermax45 SYNC 230 V CE/CCC	088577	088578	088579

Cable options

	Work cables	Control cables				
Cable length	Hand clamp	Remote pendant	CNC, spade connector, divided voltage	CNC, spade connector, no divided voltage	RS-485 Serial comm, unterminated	RS-485 Serial comm, D-sub
7.6 m (25')	223595	128650	228350	023206	223236	223239
15.2 m (50')	223596	128651	228351	023279	223237	223240
22.8 m (75')	223127	128652				

Torch options

	Hand torches		Long torches				Machine torches	Robotic/Mini		
	75°	15°	0.6 m (2'), 45°	0.6 m (2'), 90°	1.2 m (4'), 45°	1.2 m (4'), 90°	180°	180°	90°	45°
4.5 m (15')								059733		
7.6 m (25')	059726	059723			528114		059719	059734	059731	059729
10.7 m (35')							059720			
15.2 m (50')	059727	059724	528116	528117	528118	528119	059721	059735	059732	059730
22.8 m (75')	059728	059725					059722		059767	059766
30 m (100')	059770							059801		

Cable options

	Work cables	Control cables				
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Powermax cartridge options

	Drag cutting	Mechanized/standoff cutting	Max removal gouging	Max control gouging	Ohmic ring kit
45 A	428927	428925	428932	428933	428895

	FineCut®	
	Handheld	Mechanized
30–45 A	428928	428926

Accessories

Part number	Description
528083	Hypertherm Cartridge Reader
128647	Eliminizer Air Filtration Kit, 1-micron filter and auto-drain moisture separator
024877	Leather Torch Lead Cover with hook and loop closure, Black, 7.6 m (25') section
027669	Plasma Circle Cutting Guide, SmartSYNC Deluxe Kit with magnetic base
127219	System Storage Dust Cover, Powermax45/45 XP/45 SYNC

Learn more at www.hypertherm.com/powermax45sync

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