Hypertherm®

New Powermax SYNC™ series

Professional air plasma systems from 65–105 amps

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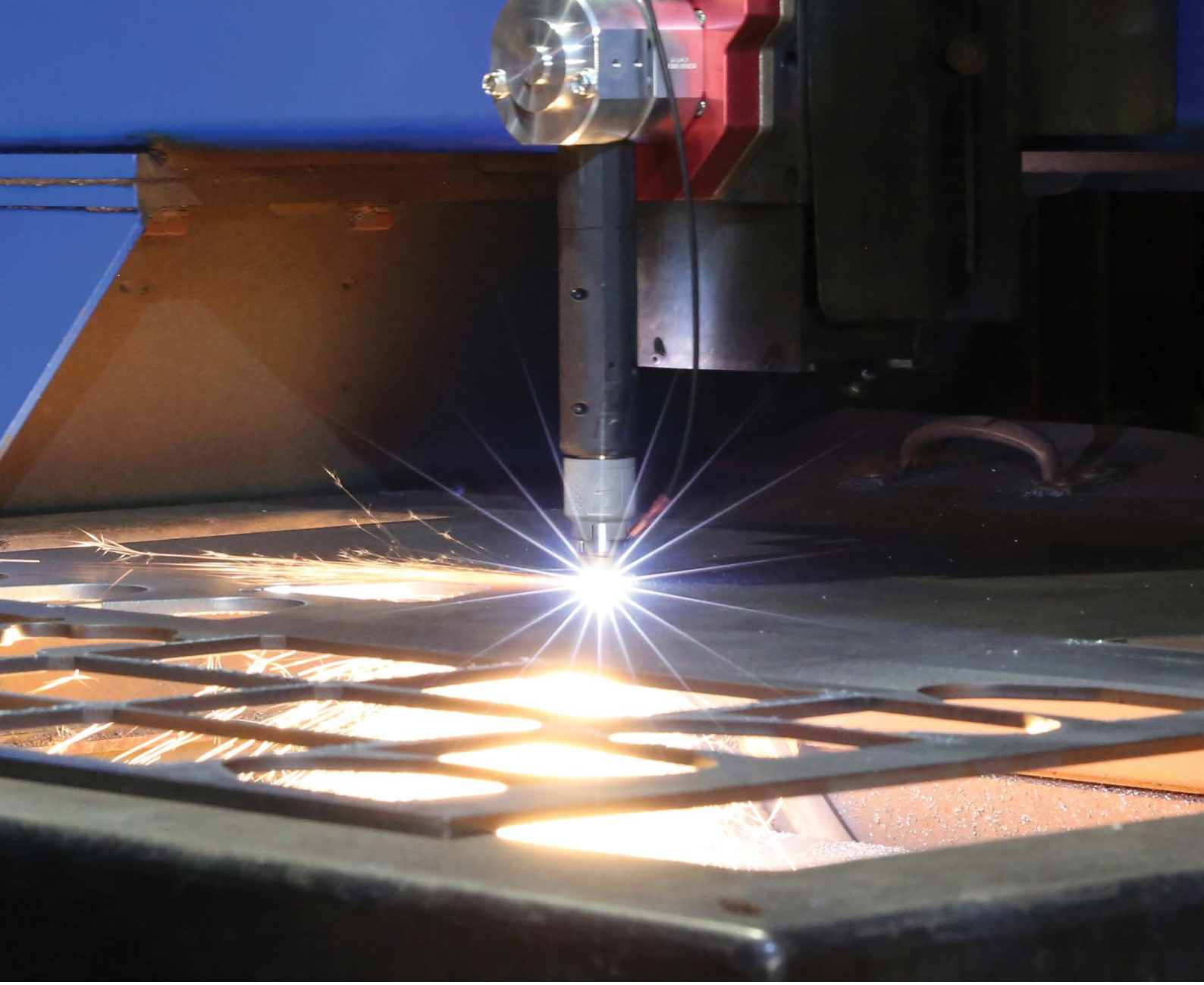
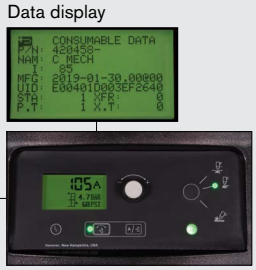


A dramatically simplified consumable platform combined with advanced torch communication for automated setup makes Hypertherm's new Powermax65/85/105 SYNC™ plasma systems the smarter choice for any cutting or gouging application.

Cartridge
- Single-piece
- Easy to identify
- RFID communicates amperage and type

SmartSYNC torch
- Simple, twist-on consumable installation
- Convenient power and amperage adjustment controls

Auto-set power supply
- Automatic process and amperage setting
- Data display



Easy to use

- Easy to identify single-piece cartridge consumables are color coded by process to eliminate parts mix-up and simplify consumable inventory management.
- New SmartSYNC™ torches with the Hypertherm cartridge automatically set the correct amperage and operating mode, eliminating setup errors.
- End of life detection lets the operator know when it's time to change the cartridge.

Minimizes operating costs

- Simplified operation minimizes downtime, troubleshooting, waste and training time.
- Advanced cartridge consumable design provides up to twice the life for hand cutting and improved quality over life in mechanized setups compared to standard consumables.
- Access cartridge data for performance tracking, analyzing usage patterns.

	Powermax65 SYNC		Powermax85 SYNC		Powermax105 SYNC	
Capacity	**Thickness**	**Cut speed**	**Thickness**	**Cut speed**	**Thickness**	**Cut speed**
	Cutting					
Recommended	20 mm	500 mm/min	25 mm	500 mm/min	32 mm	500 mm/min
	25 mm	250 mm/min	32 mm	250 mm/min	38 mm	250 mm/min
Severance	32 mm	125 mm/min	38 mm	125 mm/min	50 mm	125 mm/min
Pierce*	16 mm		20 mm		22 mm	
	*Pierce rating for handheld use or with automatic height control					
Capacity	**Metal removal rate**	**Groove profile**	**Metal removal rate**	**Gouge profile**	**Metal removal rate**	**Gouge profile**
	Maximum removal gouging					
Typical gouge	4 kg per hour	2,9 mm D x 6,4 mm W	8,2 kg per hour	3,5 mm D x 6,6 mm W	8,6 kg per hour	6,6 mm D x 6,2 mm W

Powermax105 SYNC

Maximize performance

- Tackle a wide range of jobs with easily interchangeable torch styles and application-specific Hypertherm cartridge consumables for various types of cutting and gouging.
- Reduce training time with simplified set up and consistent performance.
- Time-saving torch controls allow the operator to adjust the amperage on the fly and change consumables and applications without returning to the power supply.

Industry-leading reliability

- SmartSYNC™ torches are engineered for rugged, industrial environments.
- SpringStart™ technology ensures consistent starting and a more reliable torch.
- Industry-leading reliability reduces production downtime.

Torches and cartridges

75° hand torch

15° hand torch

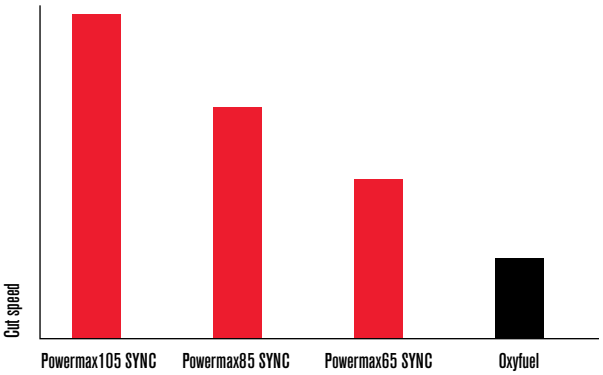
Mechanized torch

New color-coded, quarter-turn cartridges can be changed out in about 10 seconds!

Specifications

	Powermax65 SYNC™	Powermax85 SYNC™	Powermax105 SYNC™
Input voltages	200–480 V, 1-PH, 50/60 Hz 200–600 V, 3-PH, 50/60 Hz	200–480 V, 1-PH, 50/60 Hz 200–600 V, 3-PH, 50/60 Hz	200–600 V, 3-PH, 50/60 Hz
Kilowatt output	9 kW	12,2 kW	16,8 kW
Input current	200/208/240/480 V, 1-PH 52/50/44/22 A @ 9 kW 200/208/240/480/600 V, 3-PH 32/31/27/13/13 A @ 9 kW	200/208/240/480, 1-PH 70/68/58/29 A @ 12,2 kW 200/208/240/480/600 V, 3-PH 42/40/35/18/17 A @ 12,2 KW	200/208/240/480/600 V, 3-PH 58/56/49/25/22 A @ 16,8 kW
Output current	20–65 A	25–85 A	30–105 A
Rated output voltage	139 VDC	143 VDC	160 VDC
Duty cycle @ 40° C	50% @ 65 A, 230–600 V, 1/3-PH 40% @ 65 A, 200–208 V, 1/3-PH 100% @ 46 A, 230–600 V, 1/3-PH	60% @ 85 A, 230–600 V, 3-PH 60% @ 85 A, 480 V, 1-PH 50% @ 85 A 240 V, 1-PH 50% @ 85 A, 200–208 V, 3-PH 40% @ 85 A, 200–208 V, 1-PH 100% @ 66 A, 230–600 V, 1/3-PH	70% @ 105 A, 240 V, 3-PH 80% @ 105 A, 480–600 V, 3-PH 100% @ 94 A, 480–600 V, 3-PH 100% @ 88 A, 240 V, 3-PH
Open circuit voltage (OCV)	295 VDC	305 VDC	300 VDC
Dimensions with handles	483 mm D; 233 mm W; 430 mm H	483 mm D; 233 mm W; 430 mm H	592 mm D; 274 mm W; 508 mm H
Weight w/7,6 m torch	29 kg	32 kg	45,3 kg
Gas supply	Clean, dry, oil-free air or nitrogen	Clean, dry, oil-free air or nitrogen	Clean, dry, oil-free air or nitrogen
Optimum inlet gas pressure	7,6–8,3 bar	7,6–8,3 bar	7,6–8,3 bar
Minimum inlet gas pressure	5,2 bar	5,2 bar	5,5 bar
Recommended inlet gas flow rate	Cutting: 210 l/min @ 5,9 bar Gouging: 210 l/min @ 4,8 bar	Cutting: 210 l/min @ 5,9 bar Gouging: 210 l/min @ 4,8 bar	Cutting: 260 l/min @ 5,9 bar Gouging: 260 l/min @ 4,8 bar
Input power cable length	3 m	3 m	3 m
Power supply type	Inverter – IGBT	Inverter – IGBT	Inverter – IGBT
Engine drive requirement	15 kW for full 65 A output	20 kW for full 85 A output	30 kW for full 105 A output
Certifications	CSA-certified for use in the Americas and Asia, except China	CSA-certified for use in the Americas and Asia, except China	CSA-certified for use in the Americas and Asia, except China
Warranty	Power supplies have a 3-year warranty and torches a 1-year warranty	Power supplies have a 3-year warranty and torches a 1-year warranty	Power supplies have a 3-year warranty and torches a 1-year warranty

Relative cut performance on 12 mm mild steel



Ordering information

Below are the standard system configurations, which include a power supply, torch and work cable.

CSA	75° hand torch		75° and 15° hand torch	180° full-length machine torch					180° full-length machine torch and 75° hand torch
	7,6 m	15,2 m	7,6 m	7,6 m		10,7 m	15,2 m		10,7 m/7,6 m
Powermax65 SYNC™ power supplies			Without remote pendant	With remote pendant	Without remote pendant	Without remote pendant	With remote pendant	Without remote pendant	With remote pendant
Standard power supply	083343	083344	083347						
Power supply with CPC port and voltage divider	083345	083346		083348	083349		083361	083350	083351
Power supply with CPC port, voltage divider and serial port				083352		083375			
Powermax85 SYNC™ power supplies			Without remote pendant	With remote pendant	Without remote pendant	Without remote pendant	With remote pendant	Without remote pendant	With remote pendant
Standard power supply	087183	087184	087187						
Power supply with CPC port and voltage divider	087185	087186		087207	087189		087208	087190	087191
Power supply with CPC port, voltage divider and serial port					087192	087218			
Powermax105 SYNC™ power supplies			Without remote pendant	With remote pendant	Without remote pendant	Without remote pendant	With remote pendant	Without remote pendant	With remote pendant
Standard power supply	059625	059626	059634						
Power supply with CPC port and voltage divider	059627	059628		059636	059637		059639	059638	059687
Power supply with CPC port, voltage divider and serial port					059684	059762			

Custom configurations (select power supply, torch, work cable, cartridge, and other components)

Power supply options

	Standard power supply	Power supply with CPC port and voltage divider	Power supply with CPC port, voltage divider and serial port
Powermax65 SYNC 200–600 V	083371	083372	083373
Powermax85 SYNC 200–600 V	087213	087214	087215
Powermax105 SYNC	059704	059705	059706

Torch options

	Hand torches		Machine torches	Robotic/Mini		
	75°	15°	180°	180°	90°	45°
4,5 m				059733		
7,6 m	059726	059723	059719	059734	059731	059729
10,7 m			059720			
15,2 m	059727	059724	059721	059735	059732	059730
22,8 m	059728	059725	059722		059737	059736

Cable options

Control cables						
Cable length	Remote pendant	CNC, spade connector, divided voltage	CNC, spade connector, no divided voltage	CNC, D-sub connector, divided voltage	RS-485 Serial comm, unterminated	RS-485 Serial comm, D-sub
7,6 m	128650	228350	023206	223048	223236	223239
15,2 m	128651	228351	023279	123896	223237	223240
22,8 m	128652					

Cable options

Work cables			
Cable length	Hand clamp	C-style clamp	Ring terminal
7,6 m	223254	223287	223284
15,2 m	223255	223288	223285
22,8 m	223256	223289	223286

Hypertherm cartridge options

	Drag cutting	Mechanized/ standoff cutting	Max removal gouging	Max control gouging	Ohmic ring kit
45 A	428927	428925	428932	428933	428895*
65 A	428931	428930			
85 A	428935	428934			
105 A	428937	428936	428938	428939	

*Kit includes three 420580 ohmic ring clips.

Specialty application cartridge options

	FlushCut™	FineCut® handheld	FineCut® mechanized
30–45 A		428928	428926
65 A	428952		
85 A	428953		
105 A	428954		

For more information, visit:
www.hypertherm.com

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