CIGWELD
AN ESAB BRAND

BLUEVENOM

SiC
SILICON CARBIDE INVERTER

PRODUCT SELECTION CHART

WHAT IS SiC?

SiC welders utilise Silicon Carbide (SiC), an advanced semiconductor material that exhibits superior electrical, thermal and mechanical properties. Silicon Carbide transistors replace the standard Silicon (Si) transistors found in traditional welding inverters. Inverter power sources use the high frequency switching of transistors in their design to reduce the size and weight of internal transformer components. SiC improves upon this with a switching speed up to 10x higher than traditional systems, offering improvements in energy efficiency, power density, thermal performance and arc stability.

SiC ADVANTAGES:

Energy Efficient: Lower switching losses result in reduced energy consumption, 15-25% improvement over traditional welders.

Improved Thermal Performance: SiC's thermal conductivity is 3x higher than traditional systems, providing superior heat dissipation. This reduces cooling requirements and improves operational duty cycle.

Improved Arc Stability: Faster switching speeds enable precise current control, improving arc stability, reducing spatter and improving weld quality.

Reduced Size and weight: Higher frequency switching allows for smaller internal components, reducing size and weight.

Improved lifespan: Improved thermal performance and efficiency reduces maintenance requirements and extends operational lifespan.

Greater ROI: Energy savings, reduced maintenance and extended lifespan offer a greater return on investment.

								WELDING MODES																					
				SYNERGIC PLATE THICKNESS				SYNERGIC									COMPATIBLE ACCESSORIES				INCLUDED ACCESSORIES								
PART NUMBER	MACHINE	MAX OUTPUT	DUTY CYCLE	MILD STEEL	STAINLESS STEEL	ALUMINIUM	HF START	MIG	PULSE MIG	DOUBLE PULSE MIG	DC TIG	AC TIG	STICK & PULSE STICK	MIXED AC+DC TIG	COLD WELD TIG	SPOOL GUN*	PUSH-PULL GUN	WATER COOLER	WIRE FEEDER	MIG GUN	TIG TORCH	ELECTRODE HOLDER	EARTH CLAMP	POWER SUPPLY	GENERATOR SIZE	PROTECTION CLASS	WEIGHT	WARRANTY
W1400195	XF195 SiC	200A	200A @ 35% (MIG) 200A @ 60% (TIG) 200A @ 28% (STICK)	9mm	10mm	–	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓			NEXARC DGX 24	Dimex Elite 17F, 4m	200A, 3m	200A, 3m	230V 15A	8kVA	IP23S	19.2kg	5 years**
W1400202	XF200⁶ SiC	200A	200A @ 32% (MIG) 200A @ 50% (TIG) 200A @ 25% (STICK)	9mm	10mm	9.5mm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			NEXARC DGX 24	Dimex Elite 26F, 4m	200A, 3m	200A, 3m	230V 15A	8.5kVA	IP23S	21.7kg	5 years**
W1400230	XF230⁶ SiC	230A	230A @ 22% (MIG) 230A @ 35% (TIG) 200A @ 25% (STICK)	11.5mm	13mm	12mm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			NEXARC DGX 36	Dimex Elite 26F, 4m	200A, 3m	200A, 3m	230V 15A	9.5kVA	IP23S	21.7kg	5 years**
W1400254	XF250⁶ SiC	250A	250A @ 17% (MIG) 250A @ 34% (TIG) 250A @ 14% (STICK)	14mm	15mm	14mm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	CoolVenom 7LTR	BlueVenom FeedX4	NEXARC DGX 36 OLED	Dimex Elite 26F, 4m	250A, 3m	250A, 3m	230V 15A	11.5kVA	IP23S	31.2kg	5 years**
W1300250	XF250 AC/DC SiC	250A	250A @ 33% (TIG) 200A @ 25% (STICK)	7mm	7mm	8mm	✓				✓	✓	✓	✓	✓			CoolVenom 4LTR			Dimex Elite 26F, 8m	250A, 3m	250A, 3m	230V 15A	8.5kVA	IP23S	17.5kg	5 years**
W1300320	XF320 AC/DC SiC	320A	320A @ 100% (TIG) 320A @ 100% (STICK)	9mm	9mm	10mm	✓				✓	✓	✓	✓	✓			CoolVenom 4LTR			Dimex Elite 26F, 8m	400A, 3m	300A, 3m	400V 32A	16kVA	IP23S	20kg	5 years**

*Spool Gun not available with Pulse and Double Pulse MIG
**Refer to operating manual

P/N: W1400195

BLUEVENOM XF195

The XF195 SiC is the entry point into the SiC range, but it's far from a basic machine. Designed around portability and versatility, it offers MIG, Single Pulse, Double Pulse, HF DC TIG, Cold Weld TIG and Stick from a standard 15A outlet. It combines SiC inverter technology, PFC and an impressive TIG duty cycle into a lightweight package that's ideal for workshops that require advanced MIG functionality without the need for aluminium TIG welding.

XF195 ADVANTAGES:

- Lightest multi-process machine (19.2kg) in the range
- High TIG duty cycle (60% @ 200A)
- Best value entry into Pulse MIG technology
- Spool Gun and Push-Pull Gun compatibility

P/N: W1400202

BLUEVENOM XF200⁶

The XF200⁶ SiC builds upon the XF195 by introducing full AC TIG capability. It retains the same compact footprint and 15A supply while adding AC TIG and Mixed AC+DC TIG with 9 advanced AC waveforms. From precision TIG work to high-productivity Pulse MIG, the XF2006 delivers exceptional flexibility for workshops that demand more from every machine.

XF200⁶ ADVANTAGES:

- AC TIG welding
- Mixed AC+DC TIG
- 9 AC waveforms
- High TIG duty cycle (50% @ 200A)

P/N: W1400230

BLUEVENOM XF230⁶

The XF230⁶ SiC takes everything offered by the XF200⁶ and increases welding output to 230 amps while maintaining operation from a standard 15A outlet. It is designed for professionals who require more welding power without stepping into a larger industrial platform.

XF230⁶ ADVANTAGES:

- Higher 230A output (Especially on Stick)
- Supplied with a robust DGX 36 MIG gun
- Better suited to heavier fabrication
- Greater penetration on thicker material

P/N: W1400254

BLUEVENOM XF250⁶

The XF250⁶ SiC represents the flagship of the single-phase multi-process range. Beyond increased output, it introduces features aimed at maximising productivity, including a large 7 inch touchscreen, compatibility with an external wire feeder and water cooler, 300mm wire spool capacity, and includes an OLED MIG gun capable of displaying and adjusting parameter values straight from gun.

XF250⁶ ADVANTAGES:

- Higher 250A output
- 300mm (15kg) spool capacity
- Compatible with the CoolVenom 7LTR water cooler
- Compatible with the BlueVenom FeedX4 wire feeder

P/N: W1300250

BLUEVENOM XF250 AC/DC

The XF250 AC/DC SiC is purpose-built for TIG welding. It removes MIG functionality in favour of maximum TIG performance, featuring Dynamic Arc Control, advanced AC waveforms, Mixed AC/DC TIG, and Cold Weld TIG, all with precise parameter adjustment.

XF250 AC/DC ADVANTAGES:

- Purpose-built for TIG
- Significantly lighter than equivalent multi-process machines
- Single-phase operation
- Compatible with the CoolVenom 4LTR water cooler

P/N: W1300320

BLUEVENOM XF320 AC/DC

The XF320 AC/DC is the highest-performing machine in the range. Powered by 400V three-phase input, it delivers a genuine 100% duty cycle at 320 amps for both TIG and Stick, making it the go to machine for workshops that require continuous non-stop welding on the thickest materials.

XF320 AC/DC ADVANTAGES:

- Very lightweight (20kg) for its high-power output
- 100% duty cycle @320A
- Compatible with the CoolVenom 4LTR water cooler
- Fitted with 32A 3-phase plug