OTC
DAIHEN INC.

A350P

be smart tough

Welbee
WELBEE INVERTER

AC/DC PULSE TIG WELDING POWER SOURCE

Be smart

- Optimized arc control produces the highest quality welds on the thinnest materials!
- High Duty Cycle delivers efficient welding on thick plate
- Welding setting guide supports automatic selection of the welding condition
- Fieldbus interface makes it easy to connect to automation equipment

High output, high quality AC, DC, AC+DC HYBRID TIG welding power source.
High amperage and excellent arc control combine to produce perfect welds, from ultra-thin sheet to thick plate over a wide variety of materials.

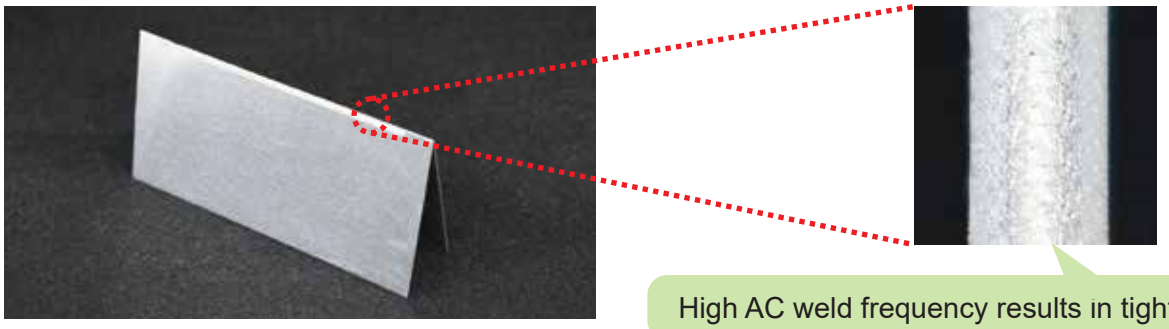
Be tough

A350P

High performance TIG welding modes (AC, DC and AC+DC Hybrid), welding current to 350A, AC pulse frequency to 500Hz, supporting manual, semi-automatic, automated and robotic applications.

High AC frequency and low current result in enhanced TIG welding performance.

Combining very tight arc concentration (AC frequency up to 500Hz) and enhanced arc stability at low current settings (AC output down to 5A) for advance TIG performance.



soft aluminum, thickness: 0.2mm, gas: 100% Ar, AC, 5A, 500Hz
welding speed: 7cm/min.

High AC weld frequency results in tighter arc focus.

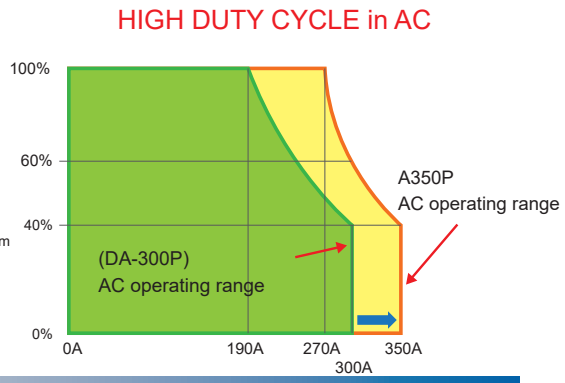
Higher duty cycle for high output welding.

Higher supported duty cycle enhances welding performance on thick materials, capable of continuous AC Welding at 270A.

AC Duty Cycles: 350A @ 40%, 300A @ 60% / 270A @ 100%)

Hard Aluminum, t=10mm, gas: 100% Ar

- first pass: AC, 240A, 500Hz, filler: 2.7m/min., weld: 30cm/min.
- 2nd pass: weaving AC, 220A, 150Hz, f: 3m/min., w: 12cm/min.
- 3rd pass: weaving AC, 200A, 70Hz, f: 3.5m/min., w: 10cm/min.



Finer control of low-end current.

Fine adjustment via the current setting increment of 0.1A for setting between 1.0A and 9.9A.

Increment increases to 1A for adjustments for setting between 10A and 350A.

Advantage of fine current adjustment

SS 304, thickness 0.012" Butt joint, DC mode

8A → 8.4A fine adjustment by 0.1A increments

Stable weld bead realized with fine current adjustment!

Insufficient heat input causes bead wandering

Excessive heat input cause burn through

8A → 9A 1.0A adjustment

Automatic selection of manual welding conditions via welding setting guide.*

Welding condition automatically set using material and joint related parameters.

Setting of the preferred welding condition (ex. weld current, initial current, crater current) is done by entering the 4 material and joint related parameters (electrode diameter, base material type, weld joint shape and base metal thickness).

* Note: This function cannot be used with Analog or Foot pedal Remote.

1. electrode diameter (1.6mm to 6.4mm)
2. base material type (hard al, soft al, steel, stainless)
3. welded joint shape (fillet, butt, lap, corner)
4. base material thickness (dimension in mm)

Setting these 4 parameters via the front panel, automatically selects the preferred welding conditions.

Operation flow of welding setting guide

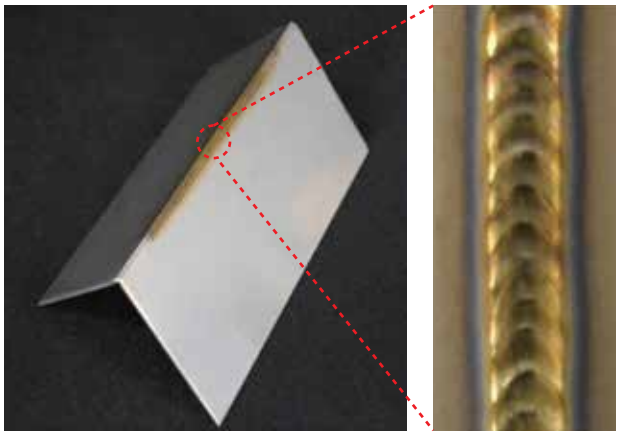
1. Press [Welding method] button to select welding method.
   - A: select AC or DC TIG
2. Press [welding setting guide] button to select material and joint related parameters (electrode diameter, base material type, weld joint shape and base metal thickness)

Recommended welding condition is set!

TIG interval function controls heat input, preventing burn-through & distortion

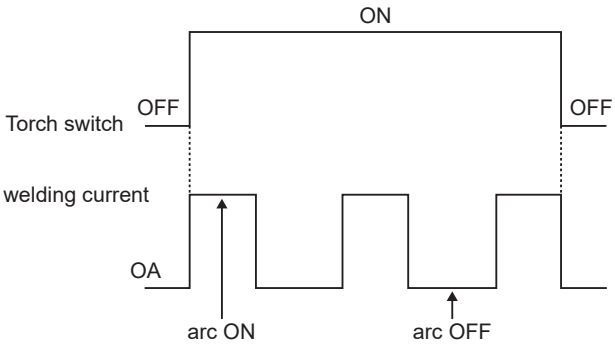
Control of Arc ON / Arc OFF time allowing finer control for establishing stable welding.

* When this function is enabled, high frequency is generated at the timing of arc ON. Touch start can not be used.



A5052, 6mm(t), 200A, 40cm/min

Use TIG interval function set arc on / off time.

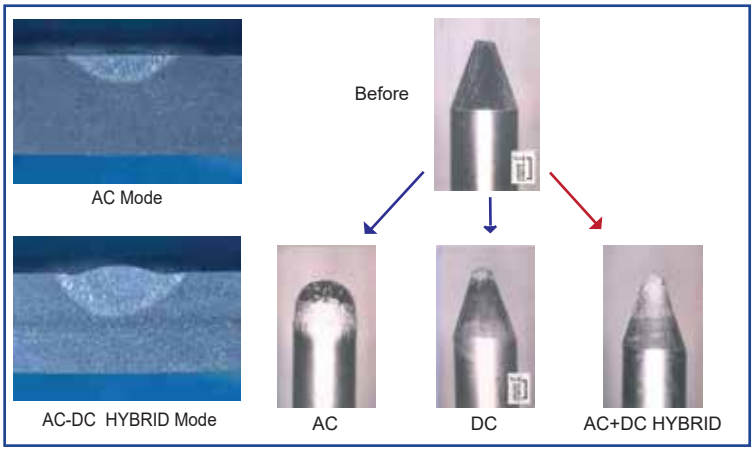


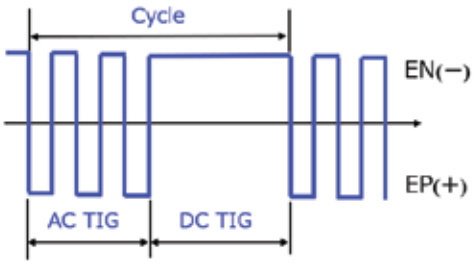
Supports optional FieldBus interfaces for auto and semi-auto applications.

EtherNet/IP, PROFIBUS and PROFINET network I/O interfaces for your automation and/or robot controller.
Alternative to the standard OTC DAIHEN CAN bus machine network communication.

AC+DC HYBRID Mode to extend the life of your tungsten electrode.

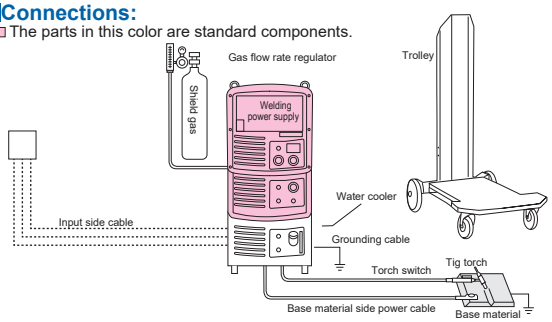
Combines the deep penetration of DC Mode with the electrode-cleaning action of AC Mode from 0.1 to 50 Hz.





Connections:

The parts in this color are standard components.



Welding Power Supply Capacity And Connecting Cables

Specifications			WB-A350P
Rated Input Voltage	V	V	460+/-10%
Number Of Phases	-	-	3-phase
Rated Input	kVA	kVA	AC:12.9 DC:12.5
Distribution Box Capacity	fuse	A	50
	Circuit breaker	A	50
※ Input Side Cable		mm^2	8~38(M6)
Base Material Side Power Cable		mm^2	38 and above
※ Grounding Cable(D Class)		mm^2	38 and above(M6)

※ ( ) shows weld power supply side crimping terminal size.

Standard Component

		WELBEE Dual-Inverter A350P		
Welding Power Source Model		WB-A350P		
Welding Torch		AWD-17 (water cool)	AWD-26 (air cool)	AWD-18 (water cool)
Base Material Side Power Cable		BKPDT-3803		
Gas Hose		BKGFF-0603		
Water Hose	for tap water	-	-	BBDW-3001
	for PU-301	-	-	BBPU-3002
Argon gas flow rate regulator		0781-2723		

Standard Specification

Specification/Model	Type	WELBEE Dual-Inverter A350P			
Model		WB-A350P			
Rated Output Current	A	AC TIG	DC TIG	AC STICK	DC STICK
		5 - 350A *	2 - 350A *	250	250
Rated Input Voltage	V	460+/- 10%			
Number of Phase	-	3-phase			
Rated Frequency	Hz	50/60			
Rated Input Power	kVA	12.2(10.2kW)	12.3(10.8kW)	15.6(10.2kW)	10.5(9.1kW)
Max. No-load Voltage	V	70/77			
Rated Duty Cycle	%	40			
Rated Load Voltage	V	24	24	30	30
Rated Output Current	A	5~350 5~250(soft mode)	2~350	10~350	10~350
Pre-flow Time	Sec.	0~99		-	
After Flow Time	Sec.	0~99		-	
Up Slope Time	Sec.	0~10		-	
Down Slope Time	Sec.	0~10		-	
DC Pulse Frequency	Hz		0.1~999	-	
Pulse Width	%	50 (changable by function key 5-95%)		-	
AC Frequency	Hz	30~500	-	50 or 60	-
AC Balance	%	-20~20	-		
AC-DC Change Frequency	Hz	0.1~50		-	
Crater Filler Control		Off/On/Repeat		-	
Arc Spot Time	Sec.	0.1~10		-	
Number Of Job Memory(Welding Condition)		100			
External Dimensions(Wxdxh)	mm	395x710x640 (without carrying handle)			
Mass	kg	56			
Start Method		High frequency start/ Lift start		-	
Welding Torch	Type	AWD-17	AWD-26	AWD-18	
Rated Corrent	A	150(DC),130(AC)	200(DC),160(AC)	350(DC),270(AC)	
Duty Cycle	%	50	50	100	
Cooling Method		Air Cool	Air Cool	Water Cool	
Electrode Dia.	mm	(0.5), (1.0), 1.6, (2.0), (2.4)	(0.5), (1.0),(1.6), (2.0), 2.4, (3.2),(4.0)	(0.5), (1.0),(1.6), (2.0) (2.4), 3.2, (4.0)	
Cable Length	m	4,8			
Argon Gas Flow Rate Regulator	Type				
Max. Flow	ℓ/min	25			

Standard Component

Model	WELBEE Dual-Inverter A350P		
Welding Torch	AWD-17	AWD-26	AWD-18
Torch Switch	1(4/8m)	1(4/8m)	1(4/8m)
Zip Tie	2	2	2

Optional Accessories:

Remote Control

Description	Part Number
Foot Pedal Control	KM2868
Analog Remote Control	K5023L00

Description	Part Number
Digital Remote Control	E-2452
Can Communication Cable	BKCAN-0405(5m)
	BKCAN-0410(10m)
BKCAN Conversion Connector	K5810B00

Water Cooler With Trolley

Description	Part Number
Water cooler with trolley	WTCB-T1

Extension Torch Cable

Description	4m	11m	16m
AW(D)-17	BAWE-1504	BAWE-1511	BAWE-1516
AW(D)-26	BAWE-2004	BAWE-2011	BAWE-2016
AW(D)-18	BAWE-3004	BAWE-3011	BAWE-3016

Extension Remote Control Cable

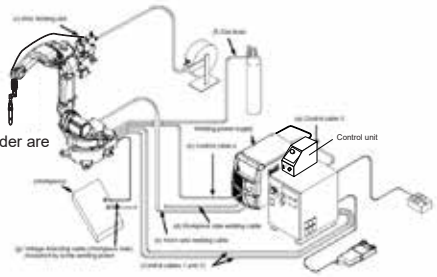
4m	11m	16m
BKCPJ-0404	BKCPJ-0411	BKCPJ-0416

FieldBus Interface

Description		Part Number
Digital I/F	EtherNet/IP	IFR-800EI
Digital I/F	PROFIBUS	IFR-800PB
Digital I/F	PROFINET	IFR-800PN

* Output current adjustable in 0.1A increments up to 9.9A
* Output current adjustable in 1A increments above 10A

In robotic mode, A350P and optional feeder are controlled by the teach pendant.



DAIHEN Inc.

OTC DAIHEN Website
www.DAIHEN-USA.com

DAIHEN ROBOT Website
www.DAIHEN-robot.com/en

NORTH AMERICA CORPORATE HEADQUARTERS
1400 Blauser Dr, Tipp City OH 45371
Phone: (937) 667-0800
Fax: (937) 667-0885

ATLANTA TECHNICAL CENTER
3135 Medlock Bridge Road
Norcross, GA 30071
Phone: 888-OTC-ROBO
Fax: (937) 667-0885

DETROIT TECHNICAL CENTER
750 Welch Road
Commerce Township, MI 48390
Phone: 888-OTC-ROBO
Fax: (937) 667-0885

DAIHEN
Member of DAIHEN Group

OTC-18 WB-A350P 08/20