WT6000 MiniPak

Medium Frequency DC Resistance Welding Control



- Compact Design Reduced Floor Space
- Light Weight for Maintenance Ease
- Single Access Point for Power & Weld Transformer
- Proven Reliable Rotary Circuit Breaker Mechanism
- External Connectors for Ethernet IP, Device Net, ProfiNet, or ProfiBus
- Inverter Film Capacitor Design for Extended Life
- Multi Language (English, German, French, Spanish, Portuguese, Polish, Chinese, Korean
- Web Based Programming for 255 Totally Programmable Welding Schedules
- Weld Tool Efficiency Monitoring (C-Factor) & Weld Transformer Protection (Flux Control)
- Weld Gun Transformer Diode Failure Detection





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Specifications

Power Source		
Voltage:	3-Phase AC 220V- 480V (± 10%)	
Line Power Frequency:	50/60Hz (Automatic Selection)	
Alternate Configuration:	Optional: 575V (± 10%)	
Output Frequency:	1,000 Hz	
Output Frequency.	(Optional Range = 400Hz - 2,000Hz)	
Output Current at 10% Duty Cycle:	400 amps	
Device Type:	IGBT	
Power Consumption:	70VA (Idling condition)	
Processor		
Weld Processor:	WT6000 Integrated	
I/O Protocol:	Ethernet IP 10/100 BaseT	
Optional I/O Protocol:	Device Net, ProfiNet, ProfiBus	
Onboard Inputs:	2 x 24VDC (for internal use)	
Onboard Outputs:	3 x 120VAC (for internal use)	
Number of weld schedules:	255	
Number of steppers:	32	
Processor Storage Type:	F-RAM (No Battery Required)	
Mold Decessor Learness	English, French, German, Spanish,	
Weld Processor Languages:	Portuguese, Polish, Chinese, Korean	
Monitoring and Control Functions		
Monitoring and	Control Functions	
	Control Functions Fixed Frequency,	
Monitoring and Firing Control:		
	Fixed Frequency,	
	Fixed Frequency, Option - Pulse Width Modulation	
Firing Control:	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current	
Firing Control:	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current Secondary Constant Current	
Firing Control: Firing mode:	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current Secondary Constant Current Voltage Control	
Firing Control: Firing mode: Primary Current Range:	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current Secondary Constant Current Voltage Control 20A to Rated Current Level ± 1% Setting, ± .5% Repeatability	
Firing Control: Firing mode: Primary Current Range: Primary Current Accuracy:	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current Secondary Constant Current Voltage Control 20A to Rated Current Level	
Firing Control: Firing mode: Primary Current Range: Primary Current Accuracy: DC Bus Voltage	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current Secondary Constant Current Voltage Control 20A to Rated Current Level ± 1% Setting, ± .5% Repeatability	
Firing Control: Firing mode: Primary Current Range: Primary Current Accuracy: DC Bus Voltage Measurement Accuracy:	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current Secondary Constant Current Voltage Control 20A to Rated Current Level ± 1% Setting, ± .5% Repeatability ± 1% Setting, ± .5% Repeatability	
Firing Control: Firing mode: Primary Current Range: Primary Current Accuracy: DC Bus Voltage Measurement Accuracy: Secondary Current Accuracy:	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current Secondary Constant Current Voltage Control 20A to Rated Current Level ± 1% Setting, ± .5% Repeatability ± 1% Setting, ± .5% Repeatability	
Firing Control: Firing mode: Primary Current Range: Primary Current Accuracy: DC Bus Voltage Measurement Accuracy: Secondary Current Accuracy: Secondary Voltage Accuracy:	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current Secondary Constant Current Voltage Control 20A to Rated Current Level ± 1% Setting, ± .5% Repeatability ± 1% Setting, ± .5% Repeatability ± 2% Setting, ± 1% Repeatability ± 3% ± 3%	
Firing Control: Firing mode: Primary Current Range: Primary Current Accuracy: DC Bus Voltage Measurement Accuracy: Secondary Current Accuracy: Secondary Voltage Accuracy: Secondary Resistive Accuracy:	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current Secondary Constant Current Voltage Control 20A to Rated Current Level ± 1% Setting, ± .5% Repeatability ± 1% Setting, ± .5% Repeatability ± 2% Setting, ± 1% Repeatability	
Firing Control: Firing mode: Primary Current Range: Primary Current Accuracy: DC Bus Voltage Measurement Accuracy: Secondary Current Accuracy: Secondary Voltage Accuracy: Secondary Resistive Accuracy: MFDC Transformer	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current Secondary Constant Current Voltage Control 20A to Rated Current Level ± 1% Setting, ± .5% Repeatability ± 1% Setting, ± .5% Repeatability ± 2% Setting, ± 1% Repeatability ± 3% ± 3%	
Firing Control: Firing mode: Primary Current Range: Primary Current Accuracy: DC Bus Voltage Measurement Accuracy: Secondary Current Accuracy: Secondary Voltage Accuracy: Secondary Resistive Accuracy: MFDC Transformer Flux Protection: Digital Scope Function:	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current Secondary Constant Current Voltage Control 20A to Rated Current Level ± 1% Setting, ± .5% Repeatability ± 1% Setting, ± .5% Repeatability ± 2% Setting, ± 1% Repeatability ± 3% Included	
Firing Control: Firing mode: Primary Current Range: Primary Current Accuracy: DC Bus Voltage Measurement Accuracy: Secondary Current Accuracy: Secondary Voltage Accuracy: Secondary Resistive Accuracy: MFDC Transformer Flux Protection:	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current Secondary Constant Current Voltage Control 20A to Rated Current Level ± 1% Setting, ± .5% Repeatability ± 1% Setting, ± 1% Repeatability ± 2% Setting, ± 1% Repeatability ± 3% Included 1 MHz Equivalent Uploads to PC	
Firing Control: Firing mode: Primary Current Range: Primary Current Accuracy: DC Bus Voltage Measurement Accuracy: Secondary Current Accuracy: Secondary Voltage Accuracy: Secondary Resistive Accuracy: MFDC Transformer Flux Protection: Digital Scope Function:	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current Secondary Constant Current Voltage Control 20A to Rated Current Level ± 1% Setting, ± .5% Repeatability ± 1% Setting, ± .5% Repeatability ± 2% Setting, ± 1% Repeatability ± 3% ± 3% Included 1 MHz Equivalent Uploads to PC Monitors Inverter and Weld Transformer Duty Cycle	
Firing Control: Firing mode: Primary Current Range: Primary Current Accuracy: DC Bus Voltage Measurement Accuracy: Secondary Current Accuracy: Secondary Voltage Accuracy: Secondary Resistive Accuracy: MFDC Transformer Flux Protection: Digital Scope Function: Duty Cycle Protection:	Fixed Frequency, Option - Pulse Width Modulation Primary Constant Current Secondary Constant Current Voltage Control 20A to Rated Current Level ± 1% Setting, ± .5% Repeatability ± 1% Setting, ± .5% Repeatability ± 2% Setting, ± 1% Repeatability ± 3% ± 3% Included 1 MHz Equivalent Uploads to PC Monitors Inverter and Weld	

	Weight:	36Kg (80lbs)	
	Distance Between Mounting Centers:	640 mm	
4	Water Fittings:	3/8 BSPP	
	Color:	Silver	
	Environmental Conditions		
	Operating Temperature:	5 C° to +50 C°	
	Humidity:	0 - 90% Relative no Condensation	
	ESD:	EN 61000-4-2 Level 3	
	Noise Immunity:	EN 61000-4-4 Level 3	
	Surge Immunity:	EN 61000-4-5 Level 3	
	Water Cooling Requirements (for Water Cooled Version)		
_	Maximum temperature not to exceed 40° C. (104° F.),		
=	or fall below the dew point of ambient air at about 21° C. (70° F.).		
\dashv	pH maintained between 7.0 and 8.0		
	Maximum chloride content 20 parts per million (PPM)		
	Maximum nitrate content 10 PPM		
	Maximum sulfate content 100 PPM		
	Maximum suspended solids content 100 PPM, non-abrasive		
	Maximum total (suspended and dissolved) solids content 250 PPM		
	Maximum calcium carbonate content 250 PPM		
	Minimum Water Flow Rate:	Greater than 5 liters per minute (1.32 gal/min)	
	Pressure Rating:	less than 620 kPa / 6.2 bar / 90 PS	
	Electrical Sensitivity of Water:	more than 5000 ohms / cm	
\dashv	Water Inlet Temperature:	Less than 35 C°	
-	Air Cooling Requirements (for Air Cooled Version)		
1	Ambient Air Temperature:	Less than 40 C°	
	Minimum Fan Rating:	80 CFM	
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Enclosure

300 H x 670 W x 505 D

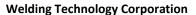
Dimensions (mm):

The *MiniPak'*s low profile design mounted on top of the robot controller allows line of sight over the combination with reduced floor space requirement.

The *MiniPak* also features web pages that can be program via the robot's teach pendant.



MiniPak web page as seen on robot pendant



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