The ARCITEC II system is the latest generation of fully integrated IGBT Inverter Power Sources. It has full Synergic functionality and has been designed specifically for the Robotic MIG/MAG Welding of all materials used in the metal fabrication industries today. The ARCITEC II system is highly integrated and uses digital communication to give fast and accurate control of the welding process, with the additional benefit of all control and communications for the welding process being handled from the robot teach pendant.

**Properties for robot welding**

The ARCITEC II system has full Synergic functionality with more than 300 method/material/wire diameter/shielding gas combinations, the majority of which have been specifically developed for Robotic Welding. This Synergic functionality gives the user quick and easy setting up of the welding parameters for short arc, spray arc, pulsed arc and high speed welding. For the more demanding applications the Synergic functionality can be switched off to allow the individual tuning of all welding parameters. The ARCITEC II system power sources provide excellent welding properties for different materials with a minimum of spatter even at high welding speeds, which gives an increase in the productivity of the robot welding station with a minimum of post weld treatment of the work piece.

**Excellent man-machine communication**

The digital communication between the power source and robot controller ensures fast and accurate control of the welding process. It also allows the use of powerful man-machine communication, with all welding parameters set from the robot teach pendant. Other information, such as measured welding voltage and current, can be displayed on the robot teach pendant. Furthermore, a self-diagnostic system detects any errors in the power source and displays the error message in plain language on the robot teach pendant. The user is constantly shown that the power source is running correctly which ensures safe operation and good welding quality. However, the power source is only one part of the complete process equipment, together with other components such as wire feeders, welding guns and work-piece positioners, high quality welding is made possible.
## Welding Equipment

### ARCITEC II
- **Physical**
  - Power source mounting: In separate cabinet below robot controller

### ARCITEC II - HD
- **Physical**
  - Power source mounting: Separate stand-alone power source

### Environment
- **Cooling of power source**: Forced air cooling
- **Degree of protection, cabinet**: IP 21
- **Ambient temperature**: 5 – 40°C
- **Relative humidity**: Max. 95%
- **Noise level power source**: Less than 70 db (A)

### Power source
- **Permissible load at 60 % duty cycle**: 400 A/34 V
- **Permissible load at 100 % duty cycle**: 315 A/30 V
- **Open circuit voltage**: 65 – 80 V
- **Communication with robot controller**: CAN-bus
- **Mains voltage**: 200 – 600 V ±10 %, 3 – 50/60 Hz
- **Power consumption – welding**: Max. 11 kW (average 6 kW)
- **Power consumption – no load**: 0.2 kW
- **Power factor**: 0.90

### Weld data setting
- **Synergic/Non synergic**
- **Number of preprogrammed, gas and wire combinations**: 320 combinations

### Process
- **Process methods**: MIG/MAG;
  - Short arc
  - Spray arc
  - Rapid arc™
  - Pulsed arc

### Monitoring
- **Operator interface**: Programming unit
- **Type of communication**: Plain language
- **Measured values**: Welding speed (velocity)
- **Diagnostics**: Extensive codes
- **Communication with robot controller**: CAN-bus

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