KempArc Pulse TCS

Increase productivity with TCS technology

Why buy

- Increases productivity between 40 and 80 % over single wire process
- Easy process setting and parameter control
- Optional ON/OFF switching of either electrode during the weld cycle
- Suitable for both steels and aluminium applications
- Reduced heat input on thin sheet materials
- Tack welding selection with either electrode
- TCS process can be direction independent
- Connects to all robot brands

Energy efficient

Key features

Replacing single-wire welding with dual-wire tandem welding is an efficient way to increase welding speed and productivity and reduce costs. However, early market models prevented users taking full advantage of the tandem process benefit. Parameter selection and adjustment was complicated, time consuming and unreliable, due to the complex synchronising of both leading and trailing arcs.

Today, KempArc Pulse TCS (Tandem Control System) delivers on its promise, opening the door to reliable dual arc welding. TCS smart software solutions provide easy system setup and automatic arc regulation, achieving significant welding speed increase and reliable welding quality.

Intelligent TCS smart software actively monitors and controls the arcs separately, making it possible to precisely adjust them independently from each other. The slave arc continuously monitors the master arc and adjusts itself accordingly, giving several performance benefits including:

• no system arc interference
• optimised, independent and real time arc length adjustment
• fast, flexible and easy parameter adjustment.

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Technical specifications

KempArc Pulse TCS		
Connection voltage	3~50/60 Hz	400 V -15…+20 %
Rated power	60 % ED	22.1 kVA
	100 % ED	17.8 kVA
Connection cable	HO7RN-F	4G6 (5 m)
Fuse (delayed)		35 A
Load capacity 40° C	60 % ED	450 A
	100 % ED	380 A
Welding current and voltage range		10…50 V
Open circuit voltage		50 V
Open circuit power		100 W
Power factor at max. current		0.9
Efficiency at max. current		88 %
Operating temperature range		-20…+40 °C
Storage temperature range		-40…+60 °C
EMC class		A
Minimun short circuit power S_{SC} of supply network		5.5 MVA
Degree of protection		IP23S
External dimensions	L x W x H	590 x 230 x 430 mm
Weight		36 kg
Voltage supply for auxiliary devices		50 V DC / 100 W
Fuse (delayed)		6.3 A
Voltage supply for cooling unit		24 V DC / 50 VA

KempArc Pulse TCS can be delivered with a welding torch option of your choice, either normal or push-pull model.

DT 400 wire feeders are equipped with the reliable 4-roll DuraTorque wire feeding mechanism and full metal feed rolls with excellent wear resistance.

Ordering information

KempArc Pulse TCS		
KempArc Pulse TCS package Devicenet		P161
KempArc Pulse TCS package Can Open		P162
KempArc Pulse TCS package Ethernet		P163
KempArc Pulse TCS package Profibus		P164
KempArc Pulse TCS package Profinet		P165
Kemparc Pulse 450TCS Digital		6200455
KempArc DT 400 wire feeder	Right hand side	6203400
KempArc DT 400L wire feeder	Left hand side	6203400L
Wise Fusion		9991015
Match curve		9990401
Devicenet Card		9774120DEV
Can Open card		9774120CAN
Ethernet Card		9774120ETH
Profibus Card		9774120PRF
Profinet Card		9774120PRN
Tandem control cable		W005451
Interconnection Cable ROBOT 95-10-WH		6260466
Kempcool 40		6208400
Binzel Tandem W 800 CAT torch		204.Z000.1

1. The welding power is delivered from two 450 amp KempArc Pulse power sources. Their settings can be controlled independently from each other.

2. KempCool 40 is an efficient water cooling device designed for use with KempArc Pulse TCS .

For more product information, videos and news, please visit our website at www.kemppi.com

KEMPPI
The Joy of Welding

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