DALEX
SCHWEISSTECHNIK

PL

RESISTANCE WELDING MACHINE WITH MF-TECHNOLOGY **PL 180 MF**

rapid –
SPOT welding machine
Spot fitting with foot switch and frontmounted electrode holder, closed cooling circuit

TECHNICAL DATA

Type	**PL 180 MF**
Power rating at 20 % d.c.	180 kVA
Secondary short-circuit current	50 kA
Throat depth	350 - 650 mm
Throat gap	160 - 350 mm
Electrode force	100 - 600 daN
Double stroke cylinder	max. 90 mm stroke

TECHNICAL DETAILS

- switching cabinet for taking the welding control, mounted on the right of the machine, ready wired
- lockable viewing window
- DALEX MF-transformer 180/500/9.0/0
- electrode fore can be infinitely regulated
- speed of working and return strokes of the cylinders can be regulated separately via throttle
- separate cooling water circuits for cooling the current-carrying parts and the power stage
- welding transformer cast in resin for water-cooling and thermal protective switch is fully enclosed in the primary side
- primary and secondary coils vacuum cast
- compressed air service unit as standard consisting of regulator and manometer
- menu-driven, multilingual synchronised welding-control with one-button handling and grafical display
- main switch acc. to VDE 0113
- correspondent to the standard VDE 0545-1, EN 60204-1, EN 50 240, EN 292 part 1+2, EN 1050
- CE-symbol

SPOT WELDING MACHINE Type **PL 180 MF**

	Technical Data* acc. to DIN 44753 / ISO 669		PL 180 MF		
	Throat depth infinitely variable	mm	350 - 650		
Electrical Part	Machine power	Power rating, 20 % d.c.	kVA	180		
		Continuous output	kVA			
		Maximum short-circuit power	kVA	450		
		Maximum welding power	kVA	360		
	Machine voltage	Secondary idling voltage	V	9		
		Number of regulating steps		0		
	Mains Connection	Rated primary voltage	V	400		
		Rated frequency	Hz	50 / 60		
		Continuous output	kVA	270		
		Main switch / Fusing [1]	A	NZMN2/125		
		Wire range, cable shorter = 50 m	mm²	50		
	Secondary current	Rated operating current	kA	20		
		Continuous current	kA	--		
		Short-circuit current	kA	50		
		Highest welding current	kA	40		
		Permitted duty cycle at highest welding current	%	5		
Mechanical Part	Cylinder EH single stroke	Electrode stroke max.	mm²	90		
		Electrode force min. / max.	daN	100 / 600		
		Max. movements at 10 mm stroke	min $^{-1}$	300		
		Air consumption / 1000 strokes [2]	m³	0,9		
	Cylinder DH double stroke	Electrode stoke max.	mm	9,0		
		Work stroke+ approach stroke max.	mm	65 + 25		
		Electrode force min. / max.	daN	100 / 600		
		Max. movements at 10 mm stroke	min $^{-1}$	300		
		Air consumption / 1000 strokes [2]	m³	1,1		
	Spot mounting	Throat gap min. / max.	mm	160 / 360		
		Electrode arm –Ø	mm	60 above / 70 below		
		Electrode holder –Ø	mm	30		
		Electrode holder, adjustability	mm	110 above /170 below		
		Spot electrode seat No. / outer -Ø	mm	2 / 18		
	Comp. air	Pipe connection, Nominal width/ connecting thread		NG 16 / G [3]		
		Operating press. min. / max.	bar	6 / 10		
	Cooling water	Pipe connection, Nominal width/ conn. thread		NG 20 / G [3]		
		Operating pressure min. / max.	bar	2 / 5		
		Circular water quantity at max. loading	l/min $^{-1}$	20		
	Machine dimensions	Width x depth x height	mm	873 / 1231 / 1564		
		Weight of machine switching cabinet compl.	kg	495		
	Shipping data	Gross weight	kg	550		
		Box: width x depth x height	mm	1000 / 1500 / 1800		
		Volume	m³	ca. 2,7		
Operational Part	Welding values	Steel steel (C-content ≤ 0,2 %) [3]	mm	--		
		CrNi sheet [3]	mm	--		
		Brass sheet [3]	mm	--		
		Aluminium sheet [3]	mm	--		
		Round steel (C-content ≤ 0,2 %) [3]	mm	--		
	Power Stage	Inverter		HWI 413		

Notes:

1) operating class gL
2) at operating pressure 6 bar
3) subject to size influences

Technical alterations reserved.
*details for shortest throat depth

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