



FP4000

Part list

For safety critical components please contact Labgruppen for the right manufacturer							
Item number	Safety critical	Item name	Replaces	Designator	Service level		
Power Supply		See restriction nr3 on how to find our item names			1	2	3
SMPS-A07-F08		SMPS-A07-F08 FCT	Replaces all SP140FXXX type F08 (see restriction nr1) because of deviations between 115V and 230V amps				x
T7KWF160VPM8770		Transformere 7kW flyback 160V core pm8770	See restriction nr7 for new mounting instructions	K1			x
TCET1102G		Ic Photocoupler Tcet1102g		U2,U3,U4			x
PWMF107a-F01		Pulse Width Modulator Flyback 1 Rev.07a Final Assembly Type 01		U1			x
FPMSA		Front Panel Magnetic Shield Type A					x
400uHETD29ST		Inductor 400uH Etd29gsp		L1			x
BC549C		Transistor Bipolar Signal Bc549c		Q5,Q9			x
BC559C		Transistor Bipolar Signal Bc559c		Q7			x
BYM26E		Diode Power Switch Bym26e		D2, D5			x
6n8250VMMK5		Capacitor Polyester 6n8 250V Mmk 5mm		C12			x
STTA3006PI		Diode Power Stta3006pi 600v Isolated Dop3i		D16, D17			x
5V6.4W2%		Diode Zener 5V6 .4W 2%		D12,D13,D23,D24,D26,D27			x
MPSA42		Transistor Bipolar Signal Mpsa42		Q8			x
MPSA92		Transistor Bipolar Signal Mpsa92		Q10			x
BYT30PI1000		Diode Power Byt30pi1000 Isolated		D3			x
SGW25N120		Transistor Igbt Power Sgw25n120		Q1,Q2			x
12V.4W5%		Diode zener 12V.4w 5%		D19, D25			x
PN4392		Transistor Jfet Signal Pn4392		Q6			x
15V1.3W5%		Diode Zener 15V 1.3W 5%		D4			x
1N4148		Diode Signal 1n4148		D21, D22			x
STTA1512PI		Diode Power Stta1512pi 1200v Isolated Dop3i		D6			x

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INPUT and OUTPUT						
AICO208-F03-T		AICO208-F03-T FCT	Replaces all AICO2XXX type F03			x
LM317FP		Ic Voltage Regulator Lm317 Full Pack		U405		x
K-TBP60RED90		Kit Terminal Binding Post 60A Red 90dg	See restriction nr8 on how to mount the binding post			x
K-TBP60BLK90		Kit Terminal Binding Post 60A Black 90dg	See restriction nr8 on how to mount the binding post			x
PCSPCO1A5V		Relay Pcb Singel Pole Change Over 1a 5v		RE402		x
74HCT4051D		Ic 2-input AND gate 74AHCT1G08 TSSOP-5		U410		x
HEF4094BT+-		Ic Comparator Lm393D SOIC-8		U414		x
2N7002		Transistor MOSFET 2N7002 SOT-23		Q3, Q5, Q103, Q105, Q205, Q203, Q303, Q305		x
BAW56		Diode Double BAW56 SOT-23		D3, D103		x
BC847C		Transistor Bipolar Signal BC847C SOT-23		Q1, Q101		x
BC857C		Transistor Bipolar Signal BC857C SOT-23		Q2, Q102		x
NE5532D		IC Operational Amplifier NE5532D SOIC-8		U5, U6, U105, U106,		x
BZX84C24		BZX84C24		D406,		x
NE8FA-H		Connector Ethercon 8+1pole Female+jack 90dg				x
TIP122FP		Transistor Bipolar Darlington Power Tip122 Fullpack		Q401		x

Amp Board						
A25TD-17E-T		A25TD-17E-T	Replaces all A25TDXXX type F05			x
NJW1302		Transistor Bipolar Power Pnp 2sa1294	Replacement only for A25TD14h-F05	Q1		x
NJW21193		Transistor Bipolar Power NJW1193 TO-3	Replacement only for A25TD14h-F05	Q2, Q3, Q4		x
STY60NK30Z		Transistor Mos Power Sty60nk30z		Q5, Q6		x

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NJW21194		Transistor Bipolar Power NJW21194 TO-3	Replacement only for A25TD14h-F05	Q7, Q8, Q9			x
NJW3281		Transistor Bipolar Power NJW3281 TO-3	Replacement only for A25TD14h-F05	Q10			x
2SC3263		Transistor Bipolar Power Npn 2sc3263		Q7, Q8, Q9, Q10			x
2SA1294		Transistor Bipolar Power Pnp 2sa1294		Q1, Q2, Q3, Q4			x
STTH1506DPI		Diode Power Stth1506dpi		D1, D2			x
PWMNATD-F01		Pwm Negative Side Amp. Class Td Final Assembly Type 01		U5			x
PWMPATD-F01		Pwm Positive Side Amp. Class Td Final Assembly Type 01		U6			x
MJE350I		Transistor Bipolar Signal Mje350 Insulated		Q11, Q21			x
MJE340I		Transistor Bipolar Signal Mje340 Insulated		Q12, Q23			x
15V1.3W5%		Diode Zener 15V 1.3W 5%		D3, D4			x
2SJ148		Transistor Mos Signal 2sj148		Q13, Q17			x
2SK982		Transistor Mos Signal 2sk982		Q14, Q18			x
BC549C		Transistor Bipolar Signal Bc549c		Q16, Q20, Q24, Q29, Q34, Q36, Q37, Q41, Q42			x
BC559C		Transistor Bipolar Signal Bc559c		Q15, Q19, Q25, Q30, Q35, Q38, Q39			x
HCPL2601		Ic Photocoupler Hcpl2601		U3, U4			x
82R.6W1%		Resistor Metal Film 82r .6W 1%		R48, R53			x
1N4004		Diode Power 1n4004		D7, D8, D9, D10			x
Q6015L5		Triac Q6015I5		Q40			x
4K7.6W1%		Resistor Metal Film 4k7 .6W 1%		R81, R87			x
100K.6W1%		Resistor Metal Film 100k .6W 1%		R82, R86			x
39V.4W2%		Diode Zener 39V .4W 2%		D29, D30			x
3V3.4W5%		Diode Zener 3V3 .4W 5%		D14, D15			x
18K2W5%		Resistor Metal Film 18k 2W 5%		R93			x
T15A250-5x20		Fuse slow blow 15A 250V 5x20mm		P1, P2			x

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Mains input filter							For 115V amps
MIS13003-F05-T		MIS13003-F05-T FCT	Replaces all MISXXX type F05			x	See below
PCSPNO40A18V		PC SPNO 40A 18V		RE1		x	
PCSPCO10A12V		PC SPCO 10A 12V		RE2		x	
56R9W5%B		Resistor wire wound 56r 9W 5% type B		R2		x	See below
T20AH250-6.3x32		Fuse Slow Blow 20A 250V 10000A Ir 6.3x32mm		P7		x	See below
Chassis							
IFPC-PBLK		Interior Front Panel type C Painted Black				x	
SPRB04-PBLK		Side Panel Right Type B, Rev.04 Painted Black				x	
SPRB04-PBLK		Side Panel Right Type B, Rev.04 Painted Black				x	
EFPC-ANBLK		Exterior front panel type c anodised black				X	
DCSRA04-PGRY		Dustfilter clip steel right type A rev.03 Painted Grey			X		
DCSLA04-PGRY		Dustfilter clip steel left type A rev.04 Painted Grey			X		
TCA-PBLK		Top Cover Type A Painted Black					X
RFPF2G		Rear Panel Fp2-series Type G					x
RFPF2H		Rear Panel Fp2-series Type H					x

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115v							
Mains input filter							
MIS13003-F52-T		MIS13003-F52-T FCT	Replaces all MISXXX type F52				x
22R9W5%		Resistor wire wound 22r 9W 5%		R2			x
T30AH125-6.3x32		Fuse slow blow 30A 125V 400A Ir 6,3x32 mm		P7			x
PCSPNO40A18V		PC SPNO 40A 18V		RE1			x
PCSPCO10A12V		PC SPCO 10A 12V		RE2			x
MLUS20A115V12AWG2m		Mains Lead Usa 20a Plug Type Nema 5-20p 3xawg12 2m Black					X
Miscellaneous							
KNBD10H16POS		Knob D10 H16 black push-on slot				x	
F80x25-24HSC		Fan 80x80x25mm 24VDC high speed type C					x
UI12Lx206a-F01		User Interface 12Lx2 rev06 vers.a Final Assembly type 01					X
MLEU3x1.52mBLK		Mains Lead Eu Plug Type Cee7/vii 3x1.5mm2 2m Black					x
M6MM9x2B		Mutter M9x2 typ B Del av VR10KLIN31HSBF					X
SRPFP4000-230C		Sticker Rear Panel FP4000 230V CE				x	
BRB9.8x15x.5		Planbricka 9.8x15x.5 Del av VR10KLIN31HSBF					X
B580x523x150LAB3		Box 580x523x150mm type 0427 Cardboard White Lab.gruppen 3			X		
POT2B04		Pcb Potentiometer Board 2ch Type B rev.04					X
VR10KLIN31HSBF		Pot 10k Lin 31step Horizontal Support Bracket Flatted shaft					X

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MH2x41ML		Mounting Header 2x4pole 1 module Locking				X
IBA		Interior Box type A 570x119x45mm		X		
SSDS5x72		Sticker selfadhesive double side 5x72mm				X
OM-FP+		Operation Manual for FP+ series		X		
SRPFP4000-115E		Sticker Rear Panel FP4000 115V ETL Certified			X	
PEPPCA		Packing EPP Corner type A		X		
SMSFPP		Sticker mains switch fp plus		X		
SLABL03		Sticker Lab.gruppen Logotype rev.03				X
SCAFCCMBGD		Sticker Caution Approvals FCC Must Be Grounded Type D				x
MLUS20A3x12AWG2m		Mains Lead Usa 20a Plug Type Nema 6-20p 3xawg12 2m Black				x
K-RSC		Kit Rear Support type c			x	
PH4P90T1.57M		Pin Header 4pole 90dg transverse 1.57 module				X