

Project:		OBC_PFC_power_board.PrfPcb		Bill of Materials		ON						
Source Data From:		OBC_PFC_power_board.PrfPcb		Solidion Engineering Center		Prestary						
Project:		OBC_PFC_power_board.PrfPcb										
Variant:		standard_board										
Report Date:		28.03.2018		16.06.20								
Print Date:		28.03.2018		16.06.46								
#	Designator	Comment	Description	LibRef	SourceLibraryName	Manufacturer	Manufacturer Part Number	Supplier	Supplier Part Number	Supplier 2	Supplier Part Number 2	Quantity
1	BP_10T		Custom made BP bracket for 300 Amp 40 pin series		specials_SVNDblLib			custom part	undefined - lab work			1
2	BP_80T		Custom made BP bracket for 800 Amp 80 pin series		specials_SVNDblLib			custom part	undefined - lab work			1
3	C11	2u2	MMP film Y1 capacitor 2u2	MMP2202002	specials_SVNDblLib	TDK	B81132022M189	Digi-Key	495-1106-1-ND	Mouser	81-GRM1887C1222K116	1
4	C13, C14, C29, C39, C31	100 nF	MCP capacitor 100nF 25V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-1106-1-ND	Mouser	81-GRM1887C101000M1D	1
5	C15, C17	1uF	MCP capacitor 1uF 25V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-1106-1-ND	Mouser	81-GRM1887C101000M1D	1
6	C18	10 nF	MCP capacitor 10nF 16V X7R 5% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-1106-1-ND	Mouser	81-GRM1887C101000M1D	1
7	C21, C23, C24, C25, C27, C28, C30, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100	100 nF	MCP capacitor 100nF 25V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-1106-1-ND	Mouser	81-GRM1887C101000M1D	1
8	C21, C30, C37, C43, C53, C60, C67, C73, C78, C83, C93, C99	2u2	MCP capacitor 2u2 25V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-1106-1-ND	Mouser	81-GRM1887C101000M1D	1
9	C24, C54, C90	250 nF	Ceramic SMD capacitor 250nF 50V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	TDK	858011925M062	Digi-Key	495-1542-1-ND	Mouser	81-GRM1887C101000M1D	1
10	C25, C26, C29, C38, C39, C42, C55, C56, C59, C68, C69, C72, C81, C82, C85, C94, C95, C96	100 nF	MCP capacitor 100nF 16V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-1532-1-ND	Mouser	81-GRM1887C101000M1D	1
11	C27, C40, C57, C70, C83, C96	2u2	MCP capacitor 2u2 10V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-4520-1-ND	Mouser	81-GRM1887C101000M1D	1
12	C31, C41, C42, C14, C87, C109	47 nF	MCP capacitor 47nF 25V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-124-1-ND	Mouser	81-GRM1887C101000M1D	1
13	C32, C34, C35, C46, C82, C84, C75, C76, C78, C90, C101, C102	470 nF	MCP capacitor 470nF 25V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-3291-1-ND	Mouser	81-GRM1887C101000M1D	1
14	C48, C58, C63, C83	470 uF	Alu electrolyte fresh current ripple 470uF 450V 20% United Chemicon	ELN1047047000000	capacitors_SVNDblLib	United Chemicon	E92451158411MAG07	Mouser	461-4292451158411MAG07			12
15	C104, C105, C106, C110, C111, C112, C116, C117, C118, C122, C123, C124, C128	100 uF	Polymer Alu elec 100uF 35V 30mOhm 20% Wurth Elektronik	WU0182007	capacitors_SVNDblLib	Wurth Elektronik	875115652007	Wurth Elektronik	875115652007			13
16	C107, C108, C109, C119, C120, C121	4uF	MCP capacitor 4uF 100V X75 10% soft termination Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GR120C22475K11L	Digi-Key	490-10955-1-ND	Mouser	81-GR120C22475K11L	4
17	C113, C114, C115, C154, C155, C156, C157, C158, C159, C160, C161, C162	220 nF	MCP capacitor 220nF 50V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	490-1483-1-ND	Mouser	81-GRM1887C101000M1D	12
18	C135, C126	100 nF	MCP capacitor 100nF 25V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	490-1274-1-ND	Mouser	81-GRM1887C101000M1D	3
19	C127	1uF	MCP capacitor 1uF 10V X7R 20% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	490-3291-1-ND	Mouser	81-GRM1887C101000M1D	1
20	C132, C133, C134, C135, C136, C137	68 uF	Alu electrolyte low impedance 68uF 35V 400mOhm 20% Wurth Elektronik	WU0505011	capacitors_SVNDblLib	Wurth Elektronik	84505054011	Digi-Key	732-8510-1-ND	Mouser	710-86505054011	4
21	C138, C140	15 uF	Alu electrolyte long life 15uF 450V 20% Wurth Elektronik	WU0505011	capacitors_SVNDblLib	Wurth Elektronik	84505163005	Wurth Elektronik	84505163005			2
22	C119	1uF	MMP film Y1 capacitor 1uF 50V 20% TDK	MMP2202002	capacitors_SVNDblLib	TDK	B8129146105M	Digi-Key	83724146105M00	Mouser	81-GRM1887C101000M1D	1
23	C141	22 nF	MCP capacitor 22nF 100V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-1106-1-ND	Mouser	81-GRM1887C101000M1D	1
24	C142, C143, C144	330 uF	Polymer Alu elec 330uF 35V 20mOhm 20% Wurth Elektronik	WU0505011	capacitors_SVNDblLib	Wurth Elektronik	875075661010	Wurth Elektronik	875075661010			3
25	C145	68 uF	MCP capacitor 68uF 25V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-3540-1-ND	Mouser	81-GRM1887C101000M1D	1
26	C146	100 nF	MCP capacitor 100nF 25V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-1106-1-ND	Mouser	81-GRM1887C101000M1D	1
27	C147	100 nF	MCP capacitor 100nF 50V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-1666-1-ND	Mouser	81-GRM1887C101000M1D	1
28	C150	68 uF	MCP capacitor 68uF 25V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-1106-1-ND	Mouser	81-GRM1887C101000M1D	1
29	C149	220 nF	MCP capacitor 220nF 25V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	490-8174-1-ND	Mouser	81-GRM1887C101000M1D	1
30	C151	68 uF	MCP capacitor 68uF 25V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-1521-1-ND	Mouser	81-GRM1887C101000M1D	1
31	C152	180 nF	MCP capacitor 180nF 25V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-4373-1-ND	Mouser	81-GRM1887C101000M1D	1
32	C153	15 uF	Alu electrolyte low impedance 15uF 35V 400mOhm 20% Wurth Elektronik	WU0505011	capacitors_SVNDblLib	Wurth Elektronik	84505163005	Digi-Key	732-8510-1-ND	Mouser	710-86505054011	1
33	C183	22 nF	MCP capacitor 22nF 50V X7R 10% Murata	GRM1887C101000M1D	capacitors_SVNDblLib	Murata	GRM1887C101000M1D	Digi-Key	495-1666-1-ND	Mouser	81-GRM1887C101000M1D	1
34	CP_ACN1_1a, CP_ACN1_2a, CP_ACN1_3a, CP_ACN1_4a, CP_DDOUT_1b, CP_DDOUT_2b	171825-0100	Crimp female terminal for wires AWG 12-10 Molex	WU0182007	connectors_SVNDblLib	Molex	171825-0100	Digi-Key	WM12411CT-ND	Mouser	538-171825-0100	4
35	CP_ACN1_1b, CP_ACN1_2b, CP_ACN1_3b, CP_ACN1_4b, CP_DDOUT_1a, CP_DDOUT_2a, CP_FAN1, CP_FAN2, CP_FAN3, CP_FAN4	43375-0001	Crimp female terminal for wires AWG 16-14 Molex	43375-0001	connectors_SVNDblLib	Molex	43375-0001	Digi-Key	WM917ACT-ND	Mouser	538-43375-0001-CT	4
36	CP_FAN1, CP_FAN2, CP_FAN3, CP_FAN4	46235-0001	Crimp female terminal for wires AWG 30-26 Molex	46235-0001	connectors_SVNDblLib	Molex	46235-0001	Digi-Key	WM7082CT-ND	Mouser	538-46235-0001	4
37	D1, D18	8AS14H	Switching diode 100V 200mA SOD323 ON Semiconductor	8AS14H	diodes_SVNDblLib	ON Semiconductor	8AS14H1TG	Farnell	2457865			2
38	D2, D4, D6, D8, D10, D12, D14, D16, D17	LS11MFA	Super Fast diode 100V V 1A 75 mV SOD123 ON Semiconductor	LS11MFA	diodes_SVNDblLib	ON Semiconductor	LS11MFA	Digi-Key	151746M-ND	Mouser	81-GRM1887C101000M1D	1
39	D10, D12, D14, D16, D17	MM5Z5438	Diode Schottky diode 40V 100mA SOD123 ON Semiconductor	MM5Z5438	diodes_SVNDblLib	ON Semiconductor	MM5Z54381TG	Digi-Key	MM5Z54381TG-ND	Mouser	81-GRM1887C101000M1D	1
40	D14	MM5Z5438	Diode Schottky diode 40V 100mA SOD123 ON Semiconductor	MM5Z5438	diodes_SVNDblLib	ON Semiconductor	MM5Z54381TG	Digi-Key	MM5Z54381TG-ND	Mouser	81-GRM1887C101000M1D	1
41	D15	SM8115CA	TVS 150V 500mA Unidirectional ON Semiconductor	SM8115CA	diodes_SVNDblLib	ON Semiconductor	SM8115CA	Digi-Key	SM8115CA1CT-ND	Mouser	538-4444-2004	1
42	D19	MM5Z5438	Diode Schottky diode 40V 100mA SOD123 ON Semiconductor	MM5Z5438	diodes_SVNDblLib	ON Semiconductor	MM5Z54381TG	Farnell	151747			1
43	D20, D21	MM5Z5438	Diode Schottky diode 40V 100mA SOD123 ON Semiconductor	MM5Z5438	diodes_SVNDblLib	ON Semiconductor	MM5Z54381TG	Digi-Key	MM5Z54381TG-ND	Mouser	81-GRM1887C101000M1D	2
44	FAN	Fan 24VDC 60x60x38mm San Ace 40 Sanyo Denki	Fan 24VDC 60x60x38mm San Ace 40 Sanyo Denki	6009040001	specials_SVNDblLib			Digi-Key	1488-1657-ND	Mouser	878-90V0024P10031	1
45	GR1	Fan finger guard for 60x60mm fans	Fan finger guard for 60x60mm fans Multicomp	MC3856	specials_SVNDblLib			Farnell	2292912			1
46	HS_A, HS_B, HS_C	SK 489 100 mm black anodized modified for OBC PFC	HeatSink Fischer Elektronik SK489 100 mm black anodized - modified for OBC PFC project	SK489_100mm_black_ano	specials_SVNDblLib	Fischer Elektronik		Fischer Elektronik	SK 489 100 SA			3
47	HS_FB	modified MC33278	HeatSink Multicomp MC33278 42x20x23.7 - modified for OBC PFC project	MC33278_42x20x23.7	specials_SVNDblLib	Farnell	1710623					1
48	HS_FR	577202 heatSink for 10230	HeatSink AAWD 577202 19.05mm 24.4°C/W AAWD	577202000000	specials_SVNDblLib	Farnell	H5107-ND	Digi-Key	H5107-ND	Mouser	538-5772020000	1
49	HS_LR, HS_LC	CSX8 15-AP	Current transformer CSX815AP 15A/1M	CSX8-15-AP	ics_SVNDblLib	LEM	CSX8 15-AP	Digi-Key	398-10965-ND	Farnell	5146926	1
50	J1, J2, J3	46007-1104	PCB right angle connector 4 pins 7.49 mm pitch Molex	46007-1104	connectors_SVNDblLib	Molex	46007-1104	Digi-Key	64607-1104-ND	Mouser	538-64607-1104	1
51	J4	44441-2004	Molex Sata receptacle 4 positions 7.62mm	44441-2004	connectors_SVNDblLib	Molex	44441-2004	Digi-Key	WM1846-ND	Mouser	538-44441-2004	1
52	J5	610-024-218-21	MCP vertical receptacle 24 pins 2.54 mm Wurth Elektronik	610-024-218-21	connectors_SVNDblLib	Wurth Elektronik	41002421821	Wurth Elektronik	41002421821			1
53	J6, J7, J8, J9	46007-1102	PCB right angle connector 2 pins 7.49 mm pitch Molex	46007-1102	connectors_SVNDblLib	Wurth Elektronik	46007-1102	Farnell	46007-1102	Mouser	538-46007-1102	1
54	J10, J11, J12, J13, J14, J15, J16, J17, J18, J19, J20, J21, J22, J23, J24, J25, J26, J27, J28, J29, J30, J31, J32, J33, J34, J35, J36, J37, J38, J39, J40, J41, J42, J43, J44, J45, J46, J47, J48, J49, J50, J51, J52, J53, J54, J55, J56, J57, J58, J59, J60, J61, J62, J63, J64, J65, J66, J67, J68, J69, J70, J71, J72, J73, J74, J75, J76, J77, J78, J79, J80, J81, J82, J83, J84, J85, J86, J87, J88, J89, J90, J91, J92, J93, J94, J95, J96, J97, J98, J99, J100, J101, J102, J103, J104, J105, J106, J107, J108, J109, J110, J111, J112, J113, J114, J115, J116, J117, J118, J119, J120, J121, J122, J123, J124, J125, J126, J127, J128, J129, J130, J131, J132, J133, J134, J135, J136, J137, J138, J139, J140, J141, J142, J143, J144, J145, J146, J147, J148, J149, J150, J151, J152, J153, J154, J155, J156, J157, J158, J159, J160, J161, J162, J163, J164, J165, J166, J167, J168, J169, J170, J171, J172, J173, J174, J175, J176, J177, J178, J179, J180, J181, J182, J183, J184, J185, J186, J187, J188, J189, J190, J191, J192, J193, J194, J195, J196, J197, J198, J199, J200, J201, J202, J203, J204, J205, J206, J207, J208, J209, J210, J211, J212, J213, J214, J215, J216, J217, J218, J219, J220, J221, J222, J223, J224, J225, J226, J227, J228, J229, J230, J231, J232, J233, J234, J235, J236, J237, J238, J239, J240, J241, J242, J243, J244, J245, J246, J247, J248, J249, J250, J251, J252, J253, J254, J255, J256, J257, J258, J259, J260, J261, J262, J263, J264, J265, J266, J267, J268, J269, J270, J271, J272, J273, J274, J275, J276, J277, J278, J279, J280, J281, J282, J283, J284, J285, J286, J287, J288, J289, J290, J291, J292, J293, J294, J295, J296, J297, J298, J299, J300, J301, J302, J303, J304, J305, J306, J307, J308, J309, J310, J311, J312, J313, J314, J315, J316, J317, J318, J319, J320, J321, J322, J323, J324, J325, J326, J327, J328, J329, J330, J331, J332, J333, J334, J335, J336, J337, J338, J339, J340, J341, J342, J343, J344, J345											