

 ABB Oy, Drives Service		On-Site Service Instructions				Document nbr 3AXD10000303478	
		ACx580-01 R6-R9				Related to material	
Department ESP400	Date 30.05.2016	Revision B			Page 6 (126)		

2. Tightening torque values

	R6			R7			R8			R9		
	Size	Torque Nm lbf-ft		Size	Torque Nm lbf-ft		Size	Torque Nm lbf-ft		Size	Torque Nm lbf-ft	
Brake IGBT to heat sink (+D150)*	M5x20	3	2.22	M6x20	5	3.7	M5x20	3	2.22	M5x20	3	2.22
Busbars to brake IGBT (+D150)	M5x12	3	2.22	M6x16	5	3.7	M6x16	5	3.7	M6x16	5	3.7
Busbars to Input bridge module	M6x16	5	3.7	M6x16	5	3.7	M6x16	5	3.7	M8x20	12	8.88
Charging resistor to heat sink	M4x12	1,5	1.11	M4x12	2	1.48	M4x12	2	1.48	M4x12	2	1.48
Clamp capacitors	M5x12	3	2.22	M6x16	5	3.7	M6x16	5	3.7	M6x16	5	3.7
Current transducer to output busbars	M4x16	1,5	1.11	M4x20	2	1.48	M4x20	2	1.48	K50x16 pt	3	2.22
DC busbars to chokes	M6x16 M8x20	5 16	3.7 11.84	M6x20 M8x20	8 16	5.92 11.84	M8x25 M10x25	16 30	11.84 22.2	M8x25 M10x25	16 30	11.84 22.2
DC busbars to IGBT	M6x14	5	3.7	M6x16	5	3.7	M6x16	5	3.7	M6x16	5	3.7
DC capacitor pole screws	M5x12	2	1.48	M5x12	3	2.22	M5x12	3	2.22	M5x12	3	2.22
Discharging resistor to heat sink *	M4x12	1,5	1.11	M4x12	2	1.48	M4x12	2	1.48	M4x12	2	1.48
IGBT to heat sink*	M5x20	3	2.22	M5x20	3	2.22	M5x20	3	2.22	M5x20	3	2.22
Input and output terminals	M8	16	11.84	M8	16	11.84	M10	30	22.2	M10	30	22.2
Input bridge busbars to chokes	M6x20 M8x20	5 16	3.7 11.84	M6x20 M8x20	8 16	5.92 11.84	M8x20 M10x25	16 30	11.84 22.2	M8x20 M10x25	16 30	11.84 22.2
Input bridge module to heat sink* <i>MCD162-16I01**</i> <i>SKKH172/16E**</i>	M6x20 M6x20	2,5 5	1.85 3.7	M6x20	3	2.22	M6x20	5	3.7	M6x20	5	3.7
Output busbars to IGBT	M6x12	5	3.7	M6x16	5	3.7	M6x16	5	3.7	M6x16	5	3.7
ZFC2-board fixing	M4x12	2	1.48	M4x8	2	1.48	M4x8	2	1.48	M4x8	2	1.48
ZINP-board fixing	M4x8	1,5	1.11	M4x16	2	1.48	M4x12	2	1.48	M4x12	2	1.48
ZINT-board fixing	M3x6	0,5	0.37	M3x10	0,5	0.37	M3x10	0,5	0.37	M3x10	0,5	0.37
ZPOW-board fixing										M3x10	0,5	0.37

* Pre-tight: 0,5Nm / 0.37 lbf-ft

** R6 Input bridge module torque depends on the used module type