KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN NOM MAX TIME DELAY	REMARK
MBB10CG005	**AXIAL DISPLACEMENT, POWER TURBINE**	ALARM		-1- +1mm/ 4-20mA	ABS. MEASURE REL. BEARING.
-	PROXIMITOR	H1	mm	- *** - -	*** +0.2mm+Bearing Clearance FROM NORMAL RUNNING POSITION. Bearing Clearance~0.5mm
MBB10CG005	**AXIAL DISPLACEMENT, POWER TURBINE**	ALARM		-1- +1mm/ 4-20mA	ABS. MEASURE REL. BEARING.
-	PROXIMITOR	L1	mm	- *** - -	*** -0.2mm FROM NORMAL RUNNING POSITION.
MBB10CG005	**AXIAL DISPLACEMENT, POWER TURBINE**	TRIP		-1- +1mm/ 4-20mA	ABS. MEASURE REL. BEARING.
-	PROXIMITOR	L2	mm	- *** - -	*** -0.3mm FROM NORMAL RUNNING POSITION.
MBB10CG010	**ROTOR ANGLE**			-- --/ -	
-	PROXIMITOR				
MBB10CP005	**EXHAUST GAS PRESSURE**	CONTROL		80- 120kPa(a)/ 4-20 mA	-
-	PRESSURE TRANSMITTER		-	- - - -	
MBB10CP010	**EXHAUST GAS PRESSURE**	ALARM		0- 12kPa/ 4-20 mA	-
-	DIFF. PRESSURE TRANSMITTER	H1	kPa	- 4 - -	
MBB10CP010	**EXHAUST GAS PRESSURE**	TRIP H		0- 12kPa/ 4-20 mA	-
-	DIFF. PRESSURE TRANSMITTER	H2	kPa	- 5 - -	
MBB10CS005	**POWER TURBINE SPEED**	TRIP		0- 10000rpm/ 0.0-10.0V	0-10000Hz SIGNAL NAME IN COMPUTER: MBB10FS001
-	PROXIMITOR	H1	rpm	- 8662 - -	
MBB10CS005	**POWER TURBINE SPEED**	TRIP		0- 10000rpm/ 0.0-10.0V	GCB TRIP AND DELAYED TURBINE TRIP
-	PROXIMITOR	L1	rpm	- 6960 - -	
MBB10CS010	**POWER TURBINE SPEED**	TRIP		0- 10000rpm/ 0.0-10.0V	0-10000Hz SIGNAL NAME IN COMPUTER: MBB10FS001
-	PROXIMITOR	H1	rpm	- 8662 - -	
MBB10CS010	**POWER TURBINE SPEED**	TRIP		0- 10000rpm/ 0.0-10.0V	GCB TRIP AND DELAYED TURBINE TRIP
-	PROXIMITOR	L1	rpm	- 6960 - -	
MBB10CT005	**EXHAUST AIR TEMPERATURE 1**	TRIP HH		300- 650°C/ -	HH T7 MIN TO AVERAGE. 2/3 ELEMENTS IN ONE OF 8 PROBES IN STATION 51 INDICATE TOO HIGH DIFFERENCE , COMPARED TO RESPECTIVE RING AVERAGE. (MBB10EZ901ZT12). MIXED OPERATION OR DURING FUEL CHANGE.
-	THERMOCOUPLE	-	°C	- -93°C - 10 s	
MBB10CT005	**EXHAUST AIR TEMPERATURE 1**	ALARM H		300- 650°C/ -	HIGH T7MIN TO AVERAGE. DIFFERENCE BETWEEN INDIVIDUAL TEMPERATURE TO RING AVERAGE TEMPERATURE. (MBB10EM901ZA02).
-	THERMOCOUPLE	-	°C	- -37°C - 5 s	
MBB10CT005	**EXHAUST AIR TEMPERATURE 1**	TRIP HH		300- 650°C/ -	HH T7 AVERAGE ST51. THE T7 AVERAGE IN STATION 51 IS HIGHER THAN ACCEPTABLE. (MBB10FT901ZT01)
-	THERMOCOUPLE	-	°C	- +595°C - 0 s	
MBB10CT005	**EXHAUST AIR TEMPERATURE 1**	ALARM H		300- 650°C/ -	HIGH T7MAX TO AVERAGE. DIFFERENCE BETWEEN INDIVIDUAL TEMPERATURE TO RING AVERAGE TEMPERATURE. (MBB10EM901ZA01).
-	THERMOCOUPLE	-	°C	- +37°C - 5 s	
MBB10CT005	**EXHAUST AIR TEMPERATURE 1**	TRIP HH		300- 650°C/ -	HH T7 DECREASE RATE. THE T7 AVERAGE IN STATION 51 HAS DECREASED ABNORMALLY FAST. (MBB10EZ901ZT13)
-	THERMOCOUPLE	-	°C	- dt-100° - 1 s	
MBB10CT005	**EXHAUST AIR TEMPERATURE 1**	ALARM H		300- 650°C/ -	T7 AVERAGE ST51 HIGH. THE AVERAGE TEMPERATURE OF STATION 51 (24 INDIVIDUALS) IS HIGHER THAN SETTING . (MBB10FT901>H1)
-	THERMOCOUPLE	-	°C	- +585°C - 0 s	

Remark -			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	03.11.12	POWER TURBINE-/ STARTING-/ GAS GENERATOR- SYSTEM	YAMAMA CEMENT	MBB, MBJ, MBT	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11		Order no B4516	HG 9100	Archive - Lang. E
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. d	Rev	06.11.13		SIEMENS	Doc. no 2046040	Sheet 1
Prepared by S.MALMLÖV		Rev	07.01.12	SETTING LIST			Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN NOM MAX TIME DELAY	REMARK
MBB10CT005 -	**EXHAUST AIR TEMPERATURE 1** THERMOCOUPLE	TRIP HH -	°C	300- 650°C/ - - +93°C - 10 s	HH T7 MAX TO AVERAGE. 2/3 ELEMENTS IN ONE OF 8 PROBES IN STATION 51 INDICATE TOO HIGH DIFFERENCE , COMPARED TO RESPECTIVE RING AVERAGE. (MBB10EZ901ZT11). MIXED OPERATION OR DURING FUEL CHANGE.
MBB10CT005 -	**EXHAUST AIR TEMPERATURE 1** THERMOCOUPLE	ALARM H -	°C	300- 650°C/ - - +30°C - 10 s	T7 RING 3 AVERAGE HIGH . DIFFERENCE BETWEEN RING 3 AVERAGE TO T7 AVERAGE.A CONDITION IS CLOSED BY-PASSED VALVES. (MBB10EM901ZA03).
MBB10CT005 -	**EXHAUST AIR TEMPERATURE 1** THERMOCOUPLE	TRIP HH -	°C	300- 650°C/ - - +53°C - 10 s	HH T7 MAX TO AVERAGE. 2/3 ELEMENTS IN ONE OF 8 PROBES IN STATION 51 INDICATE TOO HIGH DIFFERENCE , COMPARED TO RESPECTIVE RING AVERAGE. (MBB10EZ901ZT11)
MBB10CT005 -	**EXHAUST AIR TEMPERATURE 1** THERMOCOUPLE	TRIP HH -	°C	300- 650°C/ - - -53°C - 10 s	HH T7 MIN TO AVERAGE. 2/3 ELEMENTS IN ONE OF 8 PROBES IN STATION 51 INDICATE TOO HIGH DIFFERENCE , COMPARED TO RESPECTIVE RING AVERAGE. (MBB10EZ901ZT12).
MBB10CT005 -	**EXHAUST AIR TEMPERATURE 1** THERMOCOUPLE	TRIP HH -	°C	300- 650°C/ - - -63°C - 10 s	HH T7 MIN TO AVERAGE. 2/3 ELEMENTS IN ONE OF 8 PROBES IN STATION 51 INDICATE TOO HIGH DIFFERENCE , COMPARED TO RESPECTIVE RING AVERAGE. (MBB10EZ901ZT12). WHEN STEAM OR WATER IS INLECTED.
MBB10CT005 -	**EXHAUST AIR TEMPERATURE 1** THERMOCOUPLE	TRIP HH -	°C	300- 650°C/ - - +63°C - 10s	HH T7 MAX TO AVERAGE. 2/3 ELEMENTS IN ONE OF 8 PROBES IN STATION 51 INDICATE TOO HIGH DIFFERENCE , COMPARED TO RESPECTIVE RING AVERAGE. (MBB10EZ901ZT11). WHEN STEAM OR WATER IS INJECTED.
MBB10CT010 -	**EXHAUST AIR TEMPERATURE 2** THERMOCOUPLE	TRIP HH -	°C	300- 650°C/ - - +63°C - 10 s	HH T7 MAX TO AVERAGE. 2/3 ELEMENTS IN ONE OF 8 PROBES IN STATION 52 INDICATE TOO HIGH DIFFERENCE , COMPARED TO RESPECTIVE RING AVERAGE. (MBB10EZ911ZT11). WHEN STEAM OR WATER INJECTED.
MBB10CT010 -	**EXHAUST AIR TEMPERATURE 2** THERMOCOUPLE	TRIP HH -	°C	300- 650°C/ - - -93°C - 10 s	HH T7MIN TO AVERAGE. 2/3 ELEMENTS IN ONE OF 8 PROBES IN STATION 52 INDICATE TOO HIGH DIFFERENCE , COMPARED TO RESPECTIVE RING AVERAGE. (MBB10EZ911ZT12). MIXED OPERATION OR DURING FUEL CHANGE.
MBB10CT010 -	**EXHAUST AIR TEMPERATURE 2** THERMOCOUPLE	TRIP HH -	°C	300- 650°C/ - - +93°C - 10 s	HH T7MAX TO AVERAGE. 2/3 ELEMENTS IN ONE OF 8 PROBES IN STATION 52 INDICATE TOO HIGH DIFFERENCE , COMPARED TO RESPECTIVE RING AVERAGE. (MBB10EZ911ZT11). MIXED OPERATION OR DURING FUEL CHANGE.
MBB10CT010 -	**EXHAUST AIR TEMPERATURE 2** THERMOCOUPLE	TRIP HH -	°C	300- 650°C/ - - -63°C - 10 s	HH T7MIN TO AVERAGE. 2/3 ELEMENTS IN ONE OF 8 PROBES IN STATION 52 INDICATE TOO HIGH DIFFERENCE , COMPARED TO RESPECTIVE RING AVERAGE. (MBB10EZ911ZT12). WHEN STEAM OR WATER IS INJECTED.
MBB10CT010 -	**EXHAUST AIR TEMPERATURE 2** THERMOCOUPLE	TRIP HH -	°C	300- 650°C/ - - +595°C - 0 s	HH T7 AVERAGE ST52. THE T7 AVERAGE IN STATION 52 IS HIGHER THAN ACCEPTABLE. (MBB10FT902ZT01)
MBB10CT010 -	**EXHAUST AIR TEMPERATURE 2** THERMOCOUPLE	ALARM H -	°C	300- 650°C/ - - -37°C - 5 s	HIGH T7MIN TO AVERAGE. DIFFERENCE BETWEEN INDIVIDUAL TEMPERATURE TO RING AVERAGE TEMPERATURE. (MBB10EM901ZA02).
MBB10CT010 -	**EXHAUST AIR TEMPERATURE 2** THERMOCOUPLE	TRIP HH -	°C	300- 650°C/ - - dt-100° - 1 s	HH T7 DECREASE RATE. THE T7 AVERAGE IN STATION 52 HAS DECREASED ABNORMALLY FAST (MBB10EZ911ZT13).
MBB10CT010 -	**EXHAUST AIR TEMPERATURE 2** THERMOCOUPLE	ALARM H -	°C	300- 650°C/ - - +585°C - 0 s	T7 AVERAGE ST52 HIGH. THE AVERAGE TEMPERATURE OF STATION 52 (24 INDIVIDUALS) IS HIGHER THAN SETTING . (MBB10FT902>H1)

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN NOM MAX TIME DELAY	REMARK
MBB10CT010 -	**EXHAUST AIR TEMPERATURE 2** THERMOCOUPLE	TRIP HH -	 °C	300- 650°C/ - - -53°C - 10 s	HH T7MIN TO AVERAGE. 2/3 ELEMENTS IN ONE OF 8 PROBES IN STATION 52 INDICATE TOO HIGH DIFFERENCE , COMPARED TO RESPECTIVE RING AVERAGE. (MBB10EZ911ZT12).
MBB10CT010 -	**EXHAUST AIR TEMPERATURE 2** THERMOCOUPLE	TRIP HH -	 °C	300- 650°C/ - - +53°C - 10 s	HH T7 MAX TO AVERAGE. 2/3 ELEMENTS IN ONE OF 8 PROBES IN STATION 52 INDICATE TOO HIGH DIFFERENCE , COMPARED TO RESPECTIVE RING AVERAGE. (MBB10EZ911ZT11).
MBB10CT010 -	**EXHAUST AIR TEMPERATURE 2** THERMOCOUPLE	ALARM H -	 °C	300- 650°C/ - - +37°C - 5 s	HIGH T7MAX TO AVERAGE. DIFFERENCE BETWEEN INDIVIDUAL TEMPERATURE TO RING AVERAGE TEMPERATURE. (MBB10EM901ZA01).
MBB10CT010 -	**EXHAUST AIR TEMPERATURE 2** THERMOCOUPLE	ALARM H -	 °C	300- 650°C/ - - +30°C - 10 s	T7 RING 3 AVERAGE HIGH . DIFFERENCE BETWEEN RING 3 AVERAGE TO T7 AVERAGE.A CONDITION IS CLOSED BY-PASSED VALVES. (MBB10EM901ZA03).
MBB10CT015 -	**EXHAUST AIR TEMPERATURE 3** THERMOCOUPLE	- -	 -	300- 650°C/ - - - - -	SEE MBB10CT005
MBB10CT020 -	**EXHAUST AIR TEMPERATURE 4** THERMOCOUPLE	- -	 -	300- 650°C/ - - - - -	SEE MBB10CT010
MBB10CT025 -	**EXHAUST AIR TEMPERATURE 5** THERMOCOUPLE	- -	 -	300- 650°C/ - - - - -	SEE MBB10CT005
MBB10CT030 -	**EXHAUST AIR TEMPERATURE 6** THERMOCOUPLE	- -	 -	300- 650°C/ - - - - -	SEE MBB10CT010
MBB10CT035 -	**EXHAUST AIR TEMPERATURE 7** THERMOCOUPLE	- -	 -	300- 650°C/ - - - - -	SEE MBB10CT005
MBB10CT040 -	**EXHAUST AIR TEMPERATURE 8** THERMOCOUPLE	- -	 -	300- 650°C/ - - - - -	SEE MBB10CT010
MBB10CT045 -	**EXHAUST AIR TEMPERATURE 9** THERMOCOUPLE	- -	 -	300- 650°C/ - - - - -	SEE MBB10CT005
MBB10CT050 -	**EXHAUST AIR TEMPERATURE 10** THERMOCOUPLE	- -	 -	300- 650°C/ - - - - -	SEE MBB10CT010
MBB10CT055 -	**EXHAUST AIR TEMPERATURE 11** THERMOCOUPLE	- -	 -	300- 650°C/ - - - - -	SEE MBB10CT005
MBB10CT060 -	**EXHAUST AIR TEMPERATURE 12** THERMOCOUPLE	- -	 -	300- 650°C/ - - - - -	SEE MBB10CT010
MBB10CT065 -	**EXHAUST AIR TEMPERATURE 13** THERMOCOUPLE	- -	 -	300- 650°C/ - - - - -	SEE MBB10CT005
MBB10CT070 -	**EXHAUST AIR TEMPERATURE 14** THERMOCOUPLE	- -	 -	300- 650°C/ - - - - -	SEE MBB10CT010
MBB10CT075 -	**EXHAUST AIR TEMPERATURE 15** THERMOCOUPLE	- -	 -	300- 650°C/ - - - - -	SEE MBB10CT005
MBB10CT080 -	**EXHAUST AIR TEMPERATURE 16** THERMOCOUPLE	- -	 -	300- 650°C/ - - - - -	SEE MBB10CT010

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN	NOM	MAX	TIME DELAY	REMARK
MBB10CT085	**BEARING 3 RADIAL TEMPERATURE**	ALARM		0- 150°C/ -				-
-	PT100	H1	C	-	110	-	-	
MBB10CT085	**BEARING 3 RADIAL TEMPERATURE**	ALARM		0- 150°C/ -				
-	PT100	H2	C	-	120	-	-	
MBB10CT090	**BEARING 3 RADIAL TEMPERATURE**	-		-- --/ -				SPARE
-	PT100	-	-	-	-	-	-	
MBB10CT095	**BEARING 4 AXIAL TEMPERATURE**	ALARM		0- 150°C/ -				-
-	PT100	H1	C	-	110	-	-	
MBB10CT095	**BEARING 4 AXIAL TEMPERATURE**	ALARM		0- 150°C/ -				-
-	PT100	H2	C	-	120	-	-	
MBB10CT100	**BEARING 4 AXIAL TEMPERATURE**	-		-- --/ -				SPARE
-	PT100	-	-	-	-	-	-	
MBB10CT105	**BEARING 4 RADIAL TEMPERATURE**	ALARM		0- 150°C/ -				-
-	PT100	H1	C	-	110	-	-	
MBB10CT105	**BEARING 4 RADIAL TEMPERATURE**	ALARM		0- 150°C/ -				-
-	PT100	H2	C	-	120	-	-	
MBB10CT110	**BEARING 4 RADIAL TEMPERATURE**	-		-- --/ -				SPARE
-	PT100	-	-	-	-	-	-	
MBB10CY005	**VIBRATION BEARING 3**	ALARM H		0.0- 25.0mm/s/ 4-20mA				TURBINE IN SERVICE
-	ACCELEROMETER	-	mm/s	-	7.0	-	-	
MBB10CY005	**VIBRATION BEARING 3**	ALARM		0.0- 25.0mm/s/ 4-20mA				START UP
-	ACCELEROMETER	H1	mm/s	-	11.2	-	-	
MBB10CY005	**VIBRATION BEARING 3**	TRIP		0.0- 25.0mm/s/ 4-20mA				
-	ACCELEROMETER	H2	mm/s	-	18.0	-	-	
MBB10CY010	**VIBRATION BEARING 4**	ALARM H		0.0- 25.0mm/s/ 4-20mA				TURBINE IN SERVICE
-	ACCELEROMETER	-	mm/s	-	7.0	-	-	
MBB10CY010	**VIBRATION BEARING 4**	ALARM		0.0- 25.0mm/s/ 4-20mA				START UP
-	ACCELEROMETER	H1	mm/s	-	11.2	-	-	
MBB10CY010	**VIBRATION BEARING 4**	TRIP		0.0- 25.0mm/s/ 4-20mA				
-	ACCELEROMETER	H2	mm/s	-	18.0	-	-	
MBJ10AE005	**STARTER MOTOR**	CONTROL		-- --/ -				GAS GENERATOR PURGE TIMER X HAS ITS OWN VALUE FOR EACH PROJECT
-	STARTER MOTOR	-	sec	-	X	-	-	
MBJ10AE005	**STARTER MOTOR**	CONTROL		-- --/ -				GAS GENERATOR PURGE SPEED
-	STARTER MOTOR	-	rpm	2200	2300	2350	-	
MBJ10AE005	**STARTER MOTOR**	-		-- --/ -				TIME BETWEEN STARTS
-	STARTER MOTOR	-	min	13	15	-	-	
MBJ10AE005	**STARTER MOTOR**	ALARM		-- --/ -				GT-START UP BLOCKED IF TEMP. >155°C
-	STARTER MOTOR	H1	°C	-	-	155	-	

Remark -			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	03.11.12	POWER TURBINE-/ STARTING-/ GAS GENERATOR- SYSTEM	YAMAMA CEMENT	MBB, MBJ, MBT	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11		Order no B4516 / HG 9100	Archive - / Lang. E	
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. d	Rev	06.11.13		SIEMENS	Doc. no 2046040	Sheet 4
Prepared by S.MALMLÖV		Rev	07.01.12	SETTING LIST			Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN NOM MAX TIME DELAY	REMARK
MBJ10CG005	**HAND BARRING TOOL IN POSITION**			-- --/ -	
-	SAFETY CONTACT				
MBT10CG005	**AXIAL DISPLACEMENT GAS GENERATOR**	ALARM		-1- +1mm/ 4-20mA	ABS. MEASURE REL. BEARING.
-	PROXIMITOR	H1	mm	- *** -	*** +0.2mm+Bearing Clearance FROM NORMAL RUNNING POSITION. Bearing Clearance~0.5mm
MBT10CG005	**AXIAL DISPLACEMENT GAS GENERATOR**	ALARM		-1- +1mm/ 4-20mA	ABS. MEASURE REL. BEARING.
-	PROXIMITOR	L1	mm	- *** -	*** -0.2mm FROM NORMAL RUNNING POSITION.
MBT10CG005	**AXIAL DISPLACEMENT GAS GENERATOR**	TRIP		-1- +1mm/ 4-20mA	ABS. MEASURE REL. BEARING.
-	PROXIMITOR	L2	mm	- *** -	*** -0.3mm FROM NORMAL RUNNING POSITION.
MBT10CG010	**ROTOR ANGLE**			-- --/	
-	PROXIMITOR				
MBT10CP005	**COMPRESSOR INLET PRESSURE**	CONTROL		80- 120kPa(a)/ 4-20 mA	-
-	PRESSURE TRANSMITTER		-	- - - -	
MBT10CP010	**COMPRESSOR INLET FLOW**	CONTROL		0- 12kPa/ 4-20mA	-
-	DIFF. PRESSURE TRANSMITTER	-	-	- - - -	
MBT10CP015	**COMPRESSOR DISCHARGE PRESSURE**	CONTROL		0- 1.6MPa(a)/ 4-20 mA	-
-	PRESSURE TRANSMITTER		-	- - - -	
MBT10CP020	**COMPRESSOR DISCHARGE PRESSURE**	CONTROL		0- 1.6MPa(a)/ 4-20mA	-
-	PRESSURE TRANSMITTER	-	-	- - - -	
MBT10CP025	**COMPRESSOR DISCHARGE PRESSURE**	CONTROL		0- 1.6MPa(a)/ 4-20mA	-
-	PRESSURE TRANSMITTER	-	-	- - - -	
MBT10CQ005	**MAIN FLAME**	TIME 1		-- --/	-
-	UV-DETECTOR		sec	- 3.0 -	
MBT10CQ005	**MAIN FLAME**	TIME 2		-- --/	DURING OPERATION.
-	UV-DETECTOR		sec	- 0.0 - -	
MBT10CQ010	**PILOT FLAME**	TIME 2		-- --/	DURING OPERATION
-	UV-DETECTOR		sec	- 0.0 - -	
MBT10CQ010	**PILOT FLAME**	TIME 1		-- --/	-
-	UV-DETECTOR		sec	- 10.0 - -	
MBT10CS005	**GAS GENERATOR SPEED**	TRIP		0- 12000rpm/ 0.0-10.0V	0-6000Hz SIGNAL NAME IN COMPUTER: MBT10FS005. SIGNAL FROM TRANSDUCER.
-	PROXIMITOR	H1	rpm	- 10540 - -	
MBT10CS010	**GAS GENERATOR SPEED**	TRIP		0.0- 12000rpm/ 0-10.0V	0-6000Hz. SIGNAL NAME IN COMPUTER: MBT10FS005. SIGNAL FROM TRANSDUCER.
-	PROXIMITOR	H1	rpm	- 10540 - -	
MBT10CT005	**COMPRESSOR INLET TEMPERATURE**	CONTROL		-50- 150°C/	-
-	PT100	-	-	- - - -	
MBT10CT010	**BEARING 1 AXIAL TEMPERATURE**	ALARM		0- 150°C/	-
-	PT100	H1	C	- 110 - -	
MBT10CT010	**BEARING 1 AXIAL TEMPERATURE**	ALARM		0- 150°C/	-
-	PT100	H2	C	- 120 - -	

Remark -			year-month-day	Title	Plant		Des	
Based on Doc no / revision		Orig	03.11.12	POWER TURBINE-/ STARTING-/	YAMAMA CEMENT		MBB, MBJ, MBT	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11	GAS GENERATOR- SYSTEM	Order no B4516	HG 9100	Archive -	Lang. E
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. d	Rev	06.11.13		SIEMENS	Doc. no		Sheet 5
Prepared by S.MALMLÖV		Rev	07.01.12	SETTING LIST		2046040		Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN NOM MAX TIME DELAY	REMARK
MBT10CT015	**BEARING 1 AXIAL TEMPERATURE**	-		-- --/	SPARE
-	PT100	-	-	- - - -	
MBT10CT020	**BEARING 1 RADIAL TEMPERATURE**	ALARM		0- 150°C/	-
-	PT100	H1	C	- 110 - -	
MBT10CT020	**BEARING 1 RADIAL TEMPERATURE**	ALARM		0- 150°C/	-
-	PT100	H2	C	- 120 - -	
MBT10CT025	**BEARING 1 RADIAL TEMPERATURE**	-		-- --/	SPARE
-	PT100	-	-	- - - -	
MBT10CT030	**COMPRESSOR DISCHARGE TEMPERATURE**	CONTROL		0- 450°C/	-
-	THERMOCOUPLE	-	-	- - - -	
MBT10CT035	**COMPRESSOR DISCHARGE TEMPERATURE**	CONTROL		0- 450°C/	-
-	THERMOCOUPLE	-	-	- - - -	
MBT10CT040	**COMPRESSOR DISCHARGE TEMPERATURE**	CONTROL		0- 450°C/	-
-	THERMOCOUPLE	-	-	- - - -	
MBT10CT045	**BEARING 2 RADIAL TEMPERATURE**	ALARM		0- 150°C/	
-	PT100	H1	C	- 110 - -	
MBT10CT045	**BEARING 2 RADIAL TEMPERATURE**	ALARM		0- 150°C/	-
-	PT100	H2	C	- 120 - -	
MBT10CT050	**BEARING 2 RADIAL TEMPERATURE**	-		-- --/	SPARE
-	PT100	-	-	- - - -	
MBT10CT055	**COMPRESSOR INLET TEMPERATURE**	CONTROL		-50- 150°C/ -	-
-	PT100	-	-	- - - -	
MBT10CT060	**COMPRESSOR INLET TEMPERATURE**	CONTROL		-50- 150°C/ -	-
-	PT100	-	-	- - - -	
MBT10CY005	**VIBRATION BEARING 1**	ALARM H		0.0- 25.0mm/s/ 4-20mA	TURBINE IN SERVICE
-	ACCELEROMETER	-	mm/s	- 7.0 - -	
MBT10CY005	**VIBRATION BEARING 1**	ALARM		0.0- 25.0mm/s/ 4-20mA	START UP
-	ACCELEROMETER	H1	mm/s	- 11.2 - -	
MBT10CY005	**VIBRATION BEARING 1**	TRIP		0.0- 25.0mm/s/ 4-20mA	
-	ACCELEROMETER	H2	mm/s	- 18.0 - -	
MBT10CY010	**VIBRATION BEARING 2**	ALARM H		0.0- 25.0mm/s/ 4-20mA	TURBINE IN SERVICE
-	ACCELEROMETER	-	mm/s	- 7.0 - -	
MBT10CY010	**VIBRATION BEARING 2**	ALARM		0.0- 25.0mm/s/ 4-20mA	START UP
-	ACCELEROMETER	H1	mm/s	- 11.2 - -	
MBT10CY010	**VIBRATION BEARING 2**	TRIP		0.0- 25.0mm/s/ 4-20mA	-
-	ACCELEROMETER	H2	mm/s	- 18.0 - -	

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN NOM MAX TIME DELAY	REMARK
MBH10CT005	**SEAL AIR SUPPLY TEMPERATURE**	ALARM		0- 150°C/	-
-	PT100	H1	C	- 110 - -	
MBH10CT005	**SEAL AIR SUPPLY TEMPERATURE**	TRIP		0- 150°C/	Unloading turbine trip 30/30.
-	PT100	H2	C	- 120 - -	

Remark -			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	03.11.12	COOLING / SEALING AIR SYSTEM	YAMAMA CEMENT	MBH10	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11		Order no B4516	HG 9100	Archive - Lang. E
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. d	Rev	06.11.13		SIEMENS	Doc. no 2046040	Sheet 7
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KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN NOM MAX TIME DELAY	REMARK
MBH20CT005	**PURGE AIR TEMPERATURE AFTER COOLER**	ALARM		0- 200°C/	-
-	PT100	H1	C	- 120 - -	
MBH20CT005	**PURGE AIR TEMPERATURE AFTER COOLER**	TRIP		0- 200°C/	SYSTEM SHUT DOWN, LIQUID FUEL OPERATION NOT PERMITTED Unloading turbine trip 90/90.
-	PT100	H2	C	- 150 - -	

Remark -			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	03.11.12	PURGE AIR SYSTEM	YAMAMA CEMENT	MBH20	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11	DUAL FUEL	Order no B4516 HG 9100	Archive -	Lang. E
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. d	Rev	06.11.13		SIEMENS	Doc. no 2046040	Sheet 8
Prepared by S.MALMLÖV		Rev	07.01.12	SETTING LIST			Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN NOM MAX TIME DELAY	REMARK
MBK10CT005	**TEMPERATURE RADIAL BEARING PINION TURBINE SIDE**	ALARM		0- 150°C/	ADD 10C TO MAX NORMAL OPERATING TEMPERATURE
-	PT100	H1	C	- 100 - -	
MBK10CT005	**TEMPERATURE RADIAL BEARING PINION TURBINE SIDE**	ALARM		0- 150°C/	ADD 20C TO MAX NORMAL OPERATING TEMPERATURE
-	PT100	H2	C	- 110 - -	
MBK10CT010	**TEMPERATURE RADIAL BEARING PINION GENERATOR SIDE**	ALARM		0- 150°C/	ADD 10C TO MAX NORMAL OPERATING TEMPERATURE
-	PT100	H1	C	- 100 - -	
MBK10CT010	**TEMPERATURE RADIAL BEARING PINION GENERATOR SIDE**	ALARM		0- 150°C/	ADD 20C TO MAX NORMAL OPERATING TEMPERATURE
-	PT100	H2	C	- 110 - -	
MBK10CT025	**TEMPERATURE RADIAL BEARING WHEEL TURBINE SIDE**	ALARM		0- 150°C/	ADD 10C TO MAX NORMAL OPERATING TEMPERATURE
-	PT100	H1	C	- 100 - -	
MBK10CT025	**TEMPERATURE RADIAL BEARING WHEEL TURBINE SIDE**	ALARM		0- 150°C/	ADD 20C TO MAX NORMAL OPERATING TEMPERATURE
-	PT100	H2	C	- 110 - -	
MBK10CT030	**TEMPERATURE RADIAL BEARING WHEEL GENERATOR SIDE**	ALARM		0- 150°C/	ADD 10C TO MAX NORMAL OPERATING TEMPERATURE
-	PT100	H1	C	- 100 - -	
MBK10CT030	**TEMPERATURE RADIAL BEARING WHEEL GENERATOR SIDE**	ALARM		0- 150°C/	ADD 20C TO MAX NORMAL OPERATING TEMPERATURE
-	PT100	H2	C	- 110 - -	
MBK10CY005	**CASING VIBRATION PINION TURBINE SIDE**	ALARM		0,0- 25,0mm/s/ 0.0-10.0V	-
-	ACCELEROMETER	H1	mm/s	- 4.5 - -	
MBK10CY005	**CASING VIBRATION PINION TURBINE SIDE**	TRIP		0,0- 25,0mm/s/ 0.0-10.0V	UNLOADING TRIP
-	ACCELEROMETER	H2	mm/s	- 7.0 - -	
MBK10CY005	**CASING VIBRATION PINION TURBINE SIDE**	TRIP H		0,0- 25,0mm/s/ 0.0-10.0V	TRIP
-	ACCELEROMETER	H3	mm/s	- 8.0 - -	

Remark -			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	03.11.12		YAMAMA CEMENT	MBK	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11	GEAR SYSTEM	Order no B4516	HG 9100	Archive - Lang. E
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. d	Rev	06.11.13		SIEMENS	Doc. no 2046040	Sheet 9
Prepared by S.MALMLÖV		Rev	07.01.12	SETTING LIST			Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN NOM MAX TIME DELAY	REMARK
MBL20CP005	**DIFF. PRESSURE FILTER**	-		-- --/ -	-
-	DIFF. PRESSURE GAUGE WITH SWITCH	-	-	- - - -	
MBL20CP015	**DIFF. PRESSURE FILTER**	ALARM		0- 2kPa/ 4-20mA	-
-	DIFF. PRESSURE TRANSMITTER	H1	kPa	- 0.9 - -	
MBL20CP015	**DIFF. PRESSURE FILTER**	TRIP		0- 2kPa/ 4-20mA	-
-	DIFF. PRESSURE TRANSMITTER	H2	kPa	- 1.5 - -	
MBL30CG005	**PLENUM DOOR**			-- --/ -	
-	LIMIT SWITCH				
MBL30CM005	**AMBIENT AIR HUMIDITY**	CONTROL		0- 100%/ 4-20 mA	PORT OF EXHAUST AIR TEMPERATURE. LIMITER CALCULATION.
-	HUMIDITY TRANSDUCER		-	- - - -	
MBL30CP015	**DIFF. PRESSURE INLET PLENUM**	ALARM		-4- 2kPa/ -	-
-	DIFF. PRESSURE TRANSMITTER	H1	kPa	- -2,5 - -	
MBL30CP015	**DIFF. PRESSURE INLET PLENUM**	TRIP		-4- 2kPa/ -	-
-	DIFF. PRESSURE TRANSMITTER	H2	kPa	- -3 - -	
MBL30CT005	**AMBIENT TEMPERATURE**			-40- +80C/ 4-20 mA	
-	TEMPERATURE TRANSMITTER				

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN	NOM	MAX	TIME DELAY	REMARK
MBM10AA005	**BYPASS VALVE**	CONTROL		8- 104-/ 20-4mA				Valve position.Angle measured at actuator
-	POSITIONER	-	°	-	-	-	-	
MBM10AA005	**BYPASS VALVE**	ALARM L		8- 104-/ 20-4mA				Valve position. Limit switch - Actuator blocked
-	POSITIONER	-	°	5	-	-	-	
MBM10AA005	**BYPASS VALVE**	ALARM H		8- 104-/ 20-4mA				Valve position.Limit switch - Actuator blocked
-	POSITIONER	-	°	-	-	107	-	

Remark **-**			year-month-day	Title	Plant **YAMAMA CEMENT**	Des **MBM**	
Based on Doc no / revision		Orig	**03.11.12**				
Checked by Andreas Karlsson 2006-11-22	Resp. dept. **GPML**	Rev	**05.04.11**	**COMBUSTION CHAMBER SYSTEM**	Order no **B4516** HG **9100**	Archive **-**	Lang. **E**
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. **d**	Rev	**06.11.13**		**SIEMENS** Doc. no **2046040**		Sheet 11
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KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN	NOM	MAX	TIME DELAY	REMARK
MBN10AA010	**LEVEL CONTROL VALVE**	SET VALUE		- /				Distance from edge of lever to float.
-		-	mm	-	145	-	-	
MBN10AA215	**SAFETY VALVE**	SET VALUE		- /				-
-		-	bar(g)	-	60	-	-	
MBN10AH005	**START UP FUEL HEATER**	SET VALUE		-- --/ -				-
-	OVER HEAT PROTECTION	-	°C	40	-	45	-	
MBN10AH005	**START UP FUEL HEATER**	SET VALUE		-- --/ -				-
-	OVER HEAT PROTECTION	-	°C	15	-	21	-	
MBN10AH005	**START UP FUEL HEATER**	SET VALUE		-- --/ -				Check with system description and maintenance manual.
-	OVER HEAT PROTECTION	-	°C	-	-	55	-	
MBN10AH005	**START UP FUEL HEATER**	SET VALUE		-- --/ -				-
-	OVER HEAT PROTECTION	-	°C	40	-	45	-	
MBN10AH010	**START UP FUEL HEAT TRACING**	SET VALUE		-- --/ -				-
-	THERMOSTAT	-	°C	40	-	45	-	
MBN10CF005	**FLOW**	-		-- --/ -				Turbine consumes 2,0 l/s at full load.
-	PICK UP INC. DRY/SLEEVE	-	liter/s	-	3,0	-	-	
MBN10CF005	**FLOW**	-		0- 3,5liter/s/ 4-20 mA				Turbine consumes 2,0 l/s at full load.
-	TOTALIZER/RATEMETER	-	liter/s	-	3,0	-	-	
MBN10CF005	**FLOW**	-		-- --/ -				Turbine consumes 2,0 l/s at full load.
-	SCREW-VOLUMETER	-	liter/s	-	3,0	-	-	
MBN10CL005	**LEVEL IN FUEL TANK**	ALARM		-- --/				FROM TANK BOTTOM
-	LEVEL SWITCH	H1	mm	-	625	-	5s	
MBN10CL005	**LEVEL IN FUEL TANK**	ALARM		-- --/				FROM TANK BOTTOM
-	LEVEL SWITCH	L1	mm	-	200	-	-	
MBN10CL005	**LEVEL IN FUEL TANK**	ALARM		-- --/				FROM TANK BOTTOM
-	LEVEL SWITCH	L2	mm	-	100	-	5s	
MBN10CP005	**DIFF. PRESSURE FUEL FILTER**	ALARM		0- 400kPa/ 4-20mA				-
-	DIFF. PRESSURE TRANSMITTER	H1	kPa	20-160	80	-	-	
MBN10CP035	**DIFF. PRESSURE BEFORE MANIFOLD / P3**	-		-100- 400kPa/ 4-20 mA				VALUE SETTING WHEN COMMISSIONING
-	DIFF. PRESSURE TRANSMITTER	-	kPa	-100-40	10	-	-	Differente value conventional Lov nox. (10kPa for change over gas to fuel.)
MBN10CT005	**TEMPERATURE LIQUID FUEL TANK**	-		-15- 90°C/ -				-
-	PT100	-	°C	-	-	-	-	
MBN30CP005	**PRESSURE INSTRUMENT AIR**	ALARM		0- 1,6Mpa(g)/ 4-20mA				
-	PRESSURE TRANSMITTER	H1	Mpa(g)	-	0,9	-	-	
MBN30CP010	**PRESSURE PURGE AIR**	ALARM		0- 5Mpa(g)/ 4-20mA				-
-	PRESSURE TRANSMITTER	H1	Mpa(g)	-	3	-	-	
MBU10AA425	**PRESSURE REDUCING VALVE**	SET VALUE		- /				-
-		-	bar	-	2	-	-	

Remark **-**			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	**03.11.12**		**YAMAMA CEMENT**	**MBN, MBU10**	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. **GPML**	Rev	**05.04.11**	**LIQUID FUEL SYSTEM**	Order no **B4516** HG **9100**	Archive **-**	Lang. **E**
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. **d**	Rev	**06.11.13**		SIEMENS Doc. no **2046040**		Sheet 12
Prepared by **S.MALMLÖV**		Rev	**07.01.12**	**SETTING LIST**			Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN	NOM	MAX	TIME DELAY	REMARK
MBU10AP405	**DOSAGE PUMP**	SET VALUE		- /				SETTING REFERS TO STROKE LENGTH OF PUMP.
-		-	-	0	0,5	0,8	-	
MBU10AP405	**DOSAGE PUMP**	SET VALUE		- /				SETTING REFERS TO STROKE LENGTH OF PUMP.
-		-	-	0	0,5	0,8	-	
MBU10CF405	**LEVEL DOSAGE TANK 1**	SET VALUE		-- --/ -				21 ml dosage medium for 1000 l fuel. 1,2 cm level change in 60 sec, when medium is taken from level tube and turbine is running at full load (1,68 kg/s).
-	LEVEL GAUGE	-	mm/min	-	12	-	-	

Remark -			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	03.11.12		YAMAMA CEMENT	MBN, MBU10	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11	LIQUID FUEL SYSTEM	Order no B4516 / HG 9100	Archive -	Lang. E
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. d	Rev	06.11.13		SIEMENS	Doc. no 2046040	Sheet 13
Prepared by S.MALMLÖV		Rev	07.01.12	SETTING LIST			Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN NOM MAX TIME DELAY	REMARK
MBP05CF005	**FLOW GAS FUEL**	INDICATING		0- 2-/ 4-20mA	-
-	FLOW METER	-	kg/s	- - - -	
MBP05CL020	**CONDENSATE INDICATOR**	INDICATING		-- --/ -	-
-	SIGHT GLASS	-	-	- - - -	
MBP05CL025	**CONDENSATE INDICATOR**	INDICATING		-- --/ -	-
-	SIGHT GLASS	-	-	- - - -	
MBP05CP005	**DIFF. PRESS. GAS FUEL FILTER**	ALARM		0- 100-/ 4-20mA	FILTER UNIT NEEDS TO BE EXCHANGED
-	DIFF. PRESSURE TRANSMITTER	H1	kPa	- 50 - -	
MBP05CP010	**PRESS. GAS FUEL**	INDICATING		0- 4-/ -	-
-	PRESSURE GAUGE	-	MPa(g)	- - - -	
MBP05CP025	**PRESS. GAS FUEL**	INDICATING		0- 4-/ -	-
-	PRESSURE GAUGE	-	MPa(g)	- - - -	
MBP10AA035	**GAS FUEL CONTROL VALVE, MAIN GAS**	SET		- /	-S31 LIMIT SWITCH=MAX IGNITION POSITION. MAIN GAS CONTROL VALVE
-		-	°	- 10 - -	
MBP10AA035	**GAS FUEL CONTROL VALVE, MAIN GAS**	SET		- /	-S21 LIMIT SWITCH=MIN POSITION. MAIN GAS CONTROL VALVE
-		-	°	- 2 - -	
MBP10AA035	**GAS FUEL CONTROL VALVE, MAIN GAS**	SET		- /	-S11 LIMIT SWITCH=MAX POSITION MAIN GAS CONTROL VALVE
-		-	°	- 88 - -	
MBP10AA040	**PRESSURE REGULATING VALVE**	SETTING		- /	READING ON MBP10CP030
-		-	MPa(g)	- 0.6 - -	
MBP10AA045	**PRESSURE REGULATING VALVE**	SETTING		- /	READING ON MBP10CP035
-		-	MPa(g)	- 0.6 - -	
MBP10CP015	**GAS FUEL PRESSURE**	ALARM		0- 4Mpa(g)/ 4-20 mA	START ABORT GT WITH FREQUENCY CONTROL 2,34 Mpa.
-	PRESSURE TRANSMITTER	H1	MPa(g)	- 2.45 - -	
MBP10CP015	**GAS FUEL PRESSURE**	ALARM		0- 4Mpa(g)/ 4-20 mA	-
-	PRESSURE TRANSMITTER	H2	MPa(g)	- 2.9 - -	
MBP10CP015	**GAS FUEL PRESSURE**	ALARM		0- 4Mpa(g)/ 4-20 mA	START ABORT GT WITH FREQUENCY CONTROL 1,95 Mpa.
-	PRESSURE TRANSMITTER	L1	MPa(g)	- 2.0 - -	
MBP10CP015	**GAS FUEL PRESSURE**	TRIP		0- 4Mpa(g)/ 4-20 mA	EXTERNAL GAS PRESSURE -550 kPa. UNLOADING TURBINE TRIP 30/30
-	PRESSURE TRANSMITTER	L2	MPa(g)	- 1.8 - -	
MBP10CP030	**INSTRUMENT AIR PRESSURE**	INDICATING		0- 1-/ -	READING ON MBP10CP030
-	PRESSURE GAUGE	-	MPa(g)	- - - -	
MBP10CP035	**INSTRUMENT AIR PRESSURE**	INDICATING		0- 1-/ -	READING ON MBP10CP035
-	PRESSURE GAUGE	-	MPa(g)	- - - -	
MBP10CP050	**PRESSURE TRANSMITTER MAIN CONTROL VALVE**	INDICATING		0- 3MPa/ 4-20mA	-
-	PRESSURE TRANSMITTER	-	MPa(g)	- - - -	
MBP10CT005	**GAS FUEL TEMPERATURE**	ALARM		-25- 200°C/	-
-	PT100	H1	°C	- 150 - -	

Remark **-**			year-month-day	Title	Plant		Des	
Based on Doc no / revision		Orig	**03.11.12**		**YAMAMA CEMENT**		**MBP**	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. **GPML**	Rev	**05.04.11**	**GAS FUEL SYSTEM**	Order no **B4516**	HG **9100**	Archive **-**	Lang. **E**
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. **d**	Rev	**06.11.13**		**SIEMENS**	Doc. no		Sheet 14
Prepared by **S.MALMLÖV**		Rev	**07.01.12**	**SETTING LIST**		**2046040**		Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN	NOM	MAX	TIME DELAY	REMARK
MBP10CT005	**GAS FUEL TEMPERATURE**	ALARM		-25- 200°C/				DEW. POINT +15C.
-	PT100	L1	°C	-	+7	-	-	SETTING CONDITION: DEW POINT -8°C
MBP10CT005	**GAS FUEL TEMPERATURE**	ALARM		-25- 200°C/				DEW. POINT +10°C. SETTING CONDITION: DEW POINT=-8°C. FUEL
-	PT100	L2	°C	-	+2	-	-	CHANGE FOR DUAL FUEL.
MBP10CT005	**GAS FUEL TEMPERATURE**	TRIP		-25- 200°C/				DEW POINT +5°C, SYSTEM SHUT DOWN
-	PT100	L3	°C	-	-	-	-	SETTING CONDITION: DEW POINT= -8°C UNLOADING TURBINE TRIP 30/30
MBP10CT005	**GAS FUEL TEMPERATURE**	ALARM		-25- 200°C/				WATER DEW POINT +5°C.WATER DEW POINT OF THE NATURAL
-	PT100	L4	°C	-	-5	-	-	GAS=-10°C.OPERATOR TO TAKE ACTION=CHECKING FUEL SYSTEM
MBP20AA005	**GAS FUEL CONTROL VALVE, PRIMARY GAS**	SET		- /				-S31 LIMIT SWITCH=MAX IGNITION POSITION.
-		-	°	-	35	-	-	PILOT GAS CONTROL VALVE
MBP20AA005	**GAS FUEL CONTROL VALVE, PRIMARY GAS**	SET		- /				-S21 LIMIT SWITCH=MIN.POSITION.
-		-	°	-	2	-	-	PILOT GAS CONTROL VALVE
MBP20AA005	**GAS FUEL CONTROL VALVE, PRIMARY GAS**	SET		- /				-S11 LIMIT SWITCH=MAX POSITION.
-		-	°	-	88	-	-	PILOT GAS CONTROL VALVE
MBP20CP005	**PRESSURE TRANSMITTER PILOT CONTROL VALVE**	INDICATING		0- 3MPa/ 4-20mA				-
-	PRESSURE TRANSMITTER	-	MPa(g)	-	-	-	-	

Remark -			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	03.11.12		YAMAMA CEMENT	MBP	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11	GAS FUEL SYSTEM	Order no B4516	HG 9100	Archive -	Lang. E
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. d	Rev	06.11.13		SIEMENS	Doc. no		Sheet 15
Prepared by S.MALMLÖV		Rev	07.01.12	SETTING LIST		2046040		Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN	NOM	MAX	TIME DELAY	REMARK
MBQ10AA005	**PRESSURE REDUCING VALVE**	SET		- /				IGNITION GAS SUPPLY PRESSURE. SETTING BEFORE SYSTEM IS ACTIVATED
-		-	Mpa(g)	-	0.5	-	-	
MBQ10AA010	**PRESSURE REDUCING VALVE**	SET		- /				IGNTION GAS SUPPLY PRESSURE. SETTING BEFORE SYSTEM IS ACTIVATED
-		-	Mpa(g)	-	0.5	-	-	
MBQ10AA015	**PRESSURE REDUCING VALVE**	SET		- /				IGNITION GAS SUPPLY PRESSURE. SETTING BEFORE SYSTEM IS ACTIVATED
-		-	Mpa(g)	-	0.5	-	-	
MBQ10AA020	**PRESSURE REDUCING VALVE**	SET		- /				IGNITION GAS SUPPLY PRESSURE. SETTING BEFORE SYSTEM IS ACTIVATED.
-		-	Mpa(g)	-	0.5	-	-	
MBQ10AA035	**PRESSURE REDUCING VALVE**	SET		- /				IGNITION GAS SUPPLY PRESSURE. READING ON MBQ10 CP005.
-		-	Mpa(g)	0.1	0.35	0.6	-	
MBQ10AA050	**CONTROL VALVE**	SET		- /				IGNITION GAS FLOW ADJUSTMENT. READING ON MBQ10 CP010 TO BE LOCKED AFTER ADJUSTMENT.
-			Mpa(g)	-	0.15	-	-	
MBQ10AA410	**PRESSURE REGULATING VALVE**	SET		- /				AIR PRESSURE CONTROL. READING ON MBQ10 CP405.
-		-	Mpa(g)	0.05	0.35	1.0	-	
MBQ10AA415	**CONTROL VALVE**	SET		- /				IGNITION AIR FLOW ADJUSTMENT. READING ON MBQ10CP405. TO BE LOCKED AFTER ADJUSTMENT.
-		-	MPa(g)	-	0.1	-	-	
MBQ10AH010	**HEATER IN IGNITION GAS CABINET**	SETTING		- /				-
-		-	°C	-	15	-	-	
MBQ10CP005	**GAS PRESSURE**	INDICATING		0- 1MPa(g)/ -				-
-	PRESSURE GAUGE	-	Mpa(g)	-	-	-	-	
MBQ10CP010	**GAS PRESSURE BEFORE ORIFICE**	INDICATING		0- 400kPa/ -				-
-	PRESSURE GAUGE	-	kPa(g)	-	-	-	-	
MBQ10CP400	**AIR PRESSURE**	INDICATING		0- 1Mpa(g)/ -				-
-	PRESSURE GAUGE	-	Mpa(g)	-	-	-	-	
MBQ20AA210	**VALVE**	SET		- /				-
-		-	MPa(g)	-	3.0	-	-	
MBQ20CP005	**GAS PRESSURE TO BURNER No. 6**	INDICATING		0- 1MPa(g)/ -				-
-	PRESSURE GAUGE	-	Mpa(g)	-	-	-	-	

Remark -			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	03.11.12		YAMAMA CEMENT	MBQ	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11	IGNITION GAS SYSTEM	Order no B4516	HG 9100	Archive -	Lang. E
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. d	Rev	06.11.13		SIEMENS	Doc. no 2046040		Sheet 16
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KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN NOM MAX TIME DELAY	REMARK
MBV10CL005	**LUBE OIL TANK LEVEL**			-- --/ -	
-	LEVEL GAUGE				
MBV10CL010	**LUBE OIL TANK LEVEL**	ALARM		300- 840mm/ 4-20 mA	"MAX OPER. LEVEL" (ref: TANK BOTTOM). ONLY WHEN PUMPS ARE RUNNING AND DELAYED AFTER PUMP START.
-	LEVEL TRANSMITTER	H1	mm	- 580 - 1 min	
MBV10CL010	**LUBE OIL TANK LEVEL**	ALARM		300- 840mm/ 4-20 mA	"MAX RUN DOWN LEVEL" (ref. TANK BOTTOM). ONLY WHEN PUMPS ARE NOT RUNNING
-	LEVEL TRANSMITTER	H2	mm	- 700 - -	
MBV10CL010	**LUBE OIL TANK LEVEL**	ALARM		300- 840mm/ 4-20 mA	"MIN. OPER. LEVEL" (ref. TANK BOTTOM). TIMEDELAY AFTER PUMP START.
-	LEVEL TRANSMITTER	L1	mm	- 500 - 1 min.	
MBV10CL010	**LUBE OIL TANK LEVEL**	ALARM		300- 840mm/ 4-20 mA	"LOW LOW LEVEL" (ref. TANK BOTTOM). HEATERS INTERLOCKED BELOW THIS LEVEL.
-	LEVEL TRANSMITTER	L2	mm	- 400 - -	
MBV10CP005	**PRESSURE IN LUBE OIL TANK**	-		-4- 0kPa(g)/ -	NORMAL OPERATING PRESS. IS -1-(-1.2)kPa AT FULL POWER. SET BY SFC CONVERTER.
-	PRESSURE GAUGE	-	-	- - - -	
MBV10CP010	**DIFF. PRESSURE OIL MIST FILTER**			0- 50cmw/ -	
-	DIFF. PRESSURE GAUGE				
MBV10CP015	**PRESSURE IN LUBE OIL TANK**	ALARM		-5- 0kPa(g)/ 20-4 mA	TIME DELAY AFTER PUMP START.
-	DIFF. PRESSURE TRANSMITTER	H1	kPa(g)	- -0.8 - 30 sec	
MBV10CP015	**PRESSURE IN LUBE OIL TANK**	ALARM		-5- 0kPa(g)/ 20-4 mA	TIME DELAY DURING SHUT DOWN
-	DIFF. PRESSURE TRANSMITTER	H2	kPa(g)	-5 -0.8 0 5sec	
MBV10CP015	**PRESSURE IN LUBE OIL TANK**	TRIP		-5- 0kPa(g)/ 20-4 mA	TIME DELAY DURING OPERATION. UNLOADING 90.
-	DIFF. PRESSURE TRANSMITTER	H2	kPa(g)	- -0.4 - 5 sec.	
MBV10CT005	**LUBE OIL TANK TEMPERATURE**			0- 100°C/ -	
-	THERMOMETER				
MBV10CT010	**LUBE OIL TANK TEMPERATURE**	ALARM		0- 100°C/ -	VALID FOR ISO VG46.
-	PT100	H1	°C	- 80 - -	
MBV10CT010	**LUBE OIL TANK TEMPERATURE**	CONTROL		0- 100°C/ -	CONTROL OF HEATERS. VALID FOR ISO VG46.
-	PT100	L1	°C	46 - 50 -	
MBV10CT010	**LUBE OIL TANK TEMPERATURE**	ALARM		0- 100°C/ -	TURBINE SEQUENCE INTERLOCK BELOW 10°C (ISO VG46).
-	PT100	L2	°C	- 10 - -	
MBV10CT015	**TEMP. OIL HEATER**	CONTROL		-50- 100°C/ -	-
-	THERMOSTATE	H1	°C	- 60 - -	
MBV10CT015	**TEMP. OIL HEATER**	CONTROL		-50- 100°C/ -	-
-	THERMOSTATE	L1	°C	- 55 - -	
MBV10CT020	**TEMP. OIL HEATER**	CONTROL		-50- 100°C/ -	-
-	THERMOSTATE	H1	°C	- 60 - -	
MBV10CT020	**TEMP. OIL HEATER**	CONTROL		-50- 100°C/ -	-
-	THERMOSTATE	L1	°C	- 55 - -	
MBV10CT025	**TEMP. OIL HEATER**	CONTROL		-50- 100°C/ -	-
-	THERMOSTATE	H2	°C	- 80 - -	

Remark **-**			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	**03.11.12**		**YAMAMA CEMENT**	**MBV**	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. **GPML**	Rev	**05.04.11**	**LUBE OIL SYSTEM**	Order no **B4516**	HG **9100**	Archive **-**	Lang. **E**
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. **d**	Rev	**06.11.13**		**SIEMENS**	Doc. no **2046040**		Sheet 17
Prepared by **S.MALMLÖV**		Rev	**07.01.12**	**SETTING LIST**				Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN	NOM	MAX	TIME DELAY	REMARK
MBV10CT030	**TEMP. OIL HEATER**	CONTROL		-50- 100°C/ -				-
-	THERMOSTATE	H2	°C	-	80	-	-	
MBV21AA015	**SHUT OFF VALVE, MAIN OIL PUMP MBV21 AP005 PRESSURE SIDE**	-		- /				LOCKED INTO OPEN POSITION.
-		-	-	-	-	-	-	
MBV21CP005	**PRESSURE AFTER MBV21 AP005**	CONTROL AND ALARM		-- --/ -				FOR SWITCH OVER TO STAND-BY PUMP GROUP.
-	PRESSURE SWITCH	L1	kPa(g)	-	50	-	-	
MBV22AA015	**SHUT OFF VALVE, MAIN OIL PUMP MBV22 AP005 PRESSURE SIDE**	-		- /				LOCKED INTO OPEN POSITION.
-		-	-	-	-	-	-	
MBV22CP005	**PRESSURE AFTER MBV22 AP005**	CONTROL AND ALARM		-- --/ -				FOR SWITCH OVER TO STAND-BY PUMP GROUP.
-	PRESSURE SWITCH	L1	kPa(g)	-	50	-	-	
MBV23AA015	**SHUT OFF VALVE, MAIN OIL PUMP MBV23 AP005 PRESSURE SIDE**	-		- /				LOCKED INTO OPEN POSITION.
-		-	-	-	-	-	-	
MBV23CP005	**PRESSURE AFTER MBV23 AP005**	CONTROL AND ALARM		-- --/ -				FOR SWITCH OVER TO STAND- BY PUMP GROUP.
-	PRESSURE SWITCH	L1	kPa(g)	-	50	-	-	
MBV30AA020	**TEMPERATURE REGULATING VALVE**	MIXING		- /				VALID FOR ISO VG46.
-		-	°C	45	50	55	-	
MBV40AA210	**SHUT OFF VALVE**	-		- /				LOCKED OPEN. FOR ISOLATION OF THE BOOSTER OIL LINE PRESSURE REGULATING VALVE MBV54 AA005.
-		-	-	-	-	-	-	
MBV40CP010	**DIFF. PRESSURE LUBE OIL FILTER**	ALARM		0- 150kPa/ 4-20 mA				ALARM INDICATES CARTRIDGE REPLACEMENT.
-	DIFF. PRESSURE TRANSMITTER	H1	kPa	-	80	-	60 sec.	TIME DELAY AFTER PUMP START.
MBV40CP015	**LUBE OIL PRESSURE**	ALARM		0- 300kPa(g)/ 4-20 mA				TIME DELAY ONLY AFTER PUMP START.
-	PRESSURE TRANSMITTER	L1	kPa(g)	-	140	-	30 sec	DESIGN CRITERIA IS 130 kPa. CORR. FORE GEOD. HEAD AND PRESS. DROP IN PIPES.
MBV40CP015	**LUBE OIL PRESSURE**	TRIP		0- 300kPa(g)/ 4-20 mA				TIME DELAY DURING OPERATION. DESIGN CRITERIA IS 80kPa(g).
-	PRESSURE TRANSMITTER	L2	kPa(g)	-	110	-	0.25 sec	CORR. FOR GEOD. HEAD AND PRESS. DROP IN PIPES.
MBV40CP020	**LUBE OIL PRESSURE**	-		0- 400kPa(g)/ -				PRESSURE TO BE SET TO 180 kPa(g) AT CL OF TURBINE AT FULL POWER, CLEAN FILTER AND NORMAL OPERATING OIL TEMP. NORMAL OPER. PRESSURE IS 150 kPa(g) TO 180 kPa(g) AT CL OF TURBINE. TO BE SET BY MBV30 AA025.
-	PRESSURE GAUGE	-	kPa(g)	-	-	-	-	
MBV40CP025	**LUBE OIL PRESSURE**	ALARM		0- 300kPa(g)/ 4-20 mA				TIME DELAY ONLY AFTER PUMP START.
-	PRESSURE TRANSMITTER	L1	kPa(g)	-	140	-	30 sec.	DESIGN CRITERIA IS 130 kPa. CORR. FORE GEOD. HEAD AND PRESS. DROP IN PIPES.
MBV40CP025	**LUBE OIL PRESSURE**	TRIP		0- 300kPa(g)/ 4-20 mA				TIME DELAY DURING OPERATION. DESIGN CRITERIA IS 80 kPa.
-	PRESSURE TRANSMITTER	L2	kPa(g)	-	110	-	0.25 sec	CORR. FOR GEOD. HEAD AND PRESS. DROP IN PIPES.
MBV40CT005	**LUBE OIL SUPPLY TEMPERATURE**	ALARM		0- 100°C/ -				VALID FOR ISO VG46.
-	PT100	H1	°C	-	60	-	120 sec	TIME DELAY AFTER PUMP START.
MBV40CT005	**LUBE OIL SUPPLY TEMPERATURE**	TRIP		0- 100°C/ -				VALID FOR ISO VG46.
-	PT100	H2	°C	-	65	-	-	

Remark -			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	03.11.12		YAMAMA CEMENT	MBV	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11	LUBE OIL SYSTEM	Order no B4516	HG 9100	Archive -	Lang. E
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. d	Rev	06.11.13		SIEMENS	Doc. no		Sheet 18
Prepared by S.MALMLÖV		Rev	07.01.12	SETTING LIST		2046040		Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN	NOM	MAX	TIME DELAY	REMARK
MBV40CT005	**LUBE OIL SUPPLY TEMPERATURE**	ALARM		0- 100°C/ -				VALID FOR ISO VG46.
-	PT100	L1	°C	-	30	-	120 sec	TIME DELAY AFTER PUMP START.
MBV40CT010	**LUBE OIL SUPPLY TEMPERATURE**	-		0- 100°C/ -				-
-	THERMOMETER	-	°C	-	-	-	-	
MBV40CT015	**LUBE OIL SUPPLY TEMPERATURE**	ALARM		0- 100°C/ -				VALID FOR ISO VG46.
-	PT100	H1	°C	-	60	-	120 sec.	TIME DELAY AFTER PUMP START.
MBV40CT015	**LUBE OIL SUPPLY TEMPERATURE**	TRIP		0- 100°C/ -				VALID FOR ISO VG46.
-	PT100	H2	°C	-	65	-	-	
MBV40CT015	**LUBE OIL SUPPLY TEMPERATURE**	ALARM		0- 100°C/ -				VALID FOR ISO VG46.
-	PT100	L1	°C	-	30	-	120 sec	TIME DELAY AFTER PUMP START.
MBV51AA005	**SHUT OFF VALVE**	-		- /				LOCKED OPEN POSITION.
-		-	-	-	-	-	-	
MBV51AA010	**CHECK VALVE**	-		- /				CHECK OPENING PRESSURE. TEST BY RUN PUMP ON LOW
-		-	kPa(g)	-	300	-	-	FREQUENCY AND READ PRESSURE ON MBV51CPOO5-KA09.
MBV51AA015	**SHUT OFF VALVE**	-		- /				LOCKED OPEN POSITION.
-		-	-	-	-	-	-	
MBV51AP005	**LUBE OIL HIGH PRESSURE PUMP**	-		-- --/ -				To be set to start to open at this pressure. Site test by run pump slowly
-	RELIEF VALVE	-	kPa(g)	-	1600	-	-	and close outlet valve MBV51AA015 a few seconds and read pressure at MBV51CP005-KA09.
MBV51CP005	**PRESSURE AFTER MBV51 AP005**	CONTROL AND ALARM		-- --/				SWITCH OVER TO STAND-BY PUMP GROUP.
-	PRESSURE SWITCH	L1	kPa(g)	-	240	-	-	
MBV52AA005	**SHUT OFF VALVE**	-		- /				LOCKED OPEN POSITION.
-		-	-	-	-	-	-	
MBV52AA010	**CHECK VALVE**	-		- /				CHECK OPENING PRESSURE. TEST BY RUN PUMP ON LOW
-		-	kPa(g)	-	300	-	-	FREQUENCY AND READ PRESSURE ON MBV52CPOO5-KA09.
MBV52AA015	**SHUT OFF VALVE**	-		- /				LOCKED OPEN POSITION.
-		-	-	-	-	-	-	
MBV52AP005	**LUBE OIL HIGH PRESSURE PUMP**	-		-- --/ -				To be set to start to open at this pressure. Site test by run pump slowly
-	RELIEF VALVE	-	kPa(g)	-	1600	-	-	and close outlet valve MBV52AA015 a few seconds and read pressure at MBV52CP005-KA09.
MBV52CP005	**PRESSURE AFTER MBV52 AP005**	CONTROL AND ALARM		-- --/				SWITCH OVER TO STAND-BY PUMP GROUP.
-	PRESSURE SWITCH	L1	kPa(g)	-	240	-	-	
MBV53AA005	**SHUT OFF VALVE**	-		- /				LOCKED OPEN POSITION.
-		-	-	-	-	-	-	
MBV53AA010	**CHECK VALVE**	-		- /				CHECK OPENING PRESSURE. TEST BY RUN PUMP ON LOW
-		-	kPa(g)	-	300	-	-	FREQUENCY AND READ PRESSURE ON MBV53CP005-KA09.
MBV53AA015	**SHUT OFF VALVE**	-		- /				LOCKED OPEN POSITION.
-		-	-	-	-	-	-	

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN	NOM	MAX	TIME DELAY	REMARK
MBV53AP005	**LUBE OIL HIGH PRESSURE PUMP**	-		-- --/ -				To be set to start to open at this pressure. Site test by run pump slowly and close outlet valve MBV53AA015 a few seconds and read pressure at MBV53CP005-KA09.
-	RELIEF VALVE	-	kPa(g)	-	1600	-	-	
MBV53CP005	**PRESSURE AFTER MBV53 AP005**	CONTROL AND ALARM		-- --/				SWITCH OVER TO STAND-BY PUMP GROUP.
-	PRESSURE SWITCH	L1	kPa(g)	-	240	-	-	
MBV54AA005	**HP LUBE OIL PRESSURE REGULATING VALVE**	-		- /				DIFF. PRESSURE TO BE SET TO 155 kPa AT CL OF TURBINE AT FULL POWER, NORMAL OPERATING OIL TEMP. DIFF. PRESSURE TO BE CHECKED AT MBV54CP030 AND MBV60CP005.
-		-	kPa	-	155	-	-	
MBV54AA010	**SHUT OFF VALVE**	-		- /				LOCKED OPEN. FOR ISOLATION OF THE BOOSTER OIL LINE PRESSURE REGULATING VALVE MBV54 AA005.
-		-	-	-	-	-	-	
MBV54AA020	**SHUT OFF VALVE**	-		- /				LOCKED OPEN. FOR ISOLATION OF THE BOOSTER OIL LINE PRESSURE REGULATING VALVE MBV54 AA005.
-		-	-	-	-	-	-	
MBV54CP005	**LUBE OIL DIFF. PRESSURE FOR BEARING 2**	-		0- 250kPa/				-
-	DIFF. PRESSURE GAUGE	-	kPa	-	-	-	-	
MBV54CP010	**LUBE OIL PRESSURE FOR BEARING 2**	-		0- 2.5MPa(g)/				-
-	PRESSURE GAUGE	-	MPa(g)	-	-	-	-	
MBV54CP015	**DIFF. PRESSURE BEARING 2**	ALARM		0- 300kPa/ 4-20 mA				DESIGN CRITERIA 250 kPa TO BE CALIBRATED WITH GAUGE. TIME DELAY AFTER PUMPGROUP START.
-	DIFF. PRESSURE TRANSMITTER	H1	kPa	-	285	-	30 sec	
MBV54CP015	**DIFF. PRESSURE BEARING 2**	ALARM		0- 300kPa/ 4-20 mA				TIME DELAY AFTER PUMP GROUP START. DESIGN CRITERIA 110 kPa. TO BE CALIBRATED WITH GAUGE.
-	DIFF. PRESSURE TRANSMITTER	L1	kPa	-	145	-	30 sec	
MBV54CP015	**DIFF. PRESSURE BEARING 2**	TRIP		0- 300kPa/ 4-20 mA				DESIGN CRITERIA 80 kPa. TO BE CALIBRATED WITH GAUGE. TIME DELAY ONLY DURING OPERATION.
-	DIFF. PRESSURE TRANSMITTER	L2	kPa	-	115	-	3 sec	
MBV54CP020	**DIFF. PRESSURE BEARING 2**	ALARM		0- 300kPa/ 4-20 mA				DESIGN CRITERIA 250 kPa TO BE CALIBRATED WITH GAUGE. TIME DELAY AFTER PUMPGROUP START.
-	DIFF. PRESSURE TRANSMITTER	H1	kPa	-	285	-	30 sec	
MBV54CP020	**DIFF. PRESSURE BEARING 2**	ALARM		0- 300kPa/ 4-20 mA				TIME DELAY AFTER PUMP GROUP START. DESIGN CRITERIA 110 kPa. TO BE CALIBRATED WITH GAUGE.
-	DIFF. PRESSURE TRANSMITTER	L1	kPa	-	145	-	30 sec	
MBV54CP020	**DIFF. PRESSURE BEARING 2**	TRIP		0- 300kPa/ 4-20 mA				DESIGN CRITERIA 80 kPa. TO BE CALIBRATED WITH GAUGE. TIME DELAY ONLY DURING OPERATION.
-	DIFF. PRESSURE TRANSMITTER	L2	kPa	-	115	-	3 sec	
MBV60CL005	**LEVEL BEARING 2**	TRIP		-- --/ -				NOT POSSIBLE TO SET
-	LEVEL SWITCH	H1	-	-	-	-	-	

Remark **-**			year-month-day	Title	Plant **YAMAMA CEMENT**	Des **MBV**	
Based on Doc no / revision		Orig	**03.11.12**				
Checked by Andreas Karlsson 2006-11-22	Resp. dept. **GPML**	Rev	**05.04.11**	**LUBE OIL SYSTEM**	Order no **B4516** HG **9100**	Archive **-**	Lang. **E**
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Prepared by **S.MALMLÖV**		Rev	**07.01.12**	**SETTING LIST**			Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN NOM MAX TIME DELAY	REMARK
MKA10CT005	**GENERATOR DRIVING END BEARING TEMPERATURE**	ALARM		0- 150°C/	ADJUST TO 10C ABOVE MAX OPERATING TEMPERATURE
-	PT100	H1	C	- 85 - -	
MKA10CT005	**GENERATOR DRIVING END BEARING TEMPERATURE**	ALARM		0- 150°C/	ADJUST TO 20C ABOVE MAX OPERATING TEMPERATURE
-	PT100	H2	C	- 95 - -	
MKA10CT010	**GENERATOR NON DRIVING END BEARING TEMPERATURE**	ALARM		0- 150°C/	ADJUST TO 10C ABOVE MAX OPERATING TEMPERATURE
-	PT100	H1	C	- 85 - -	
MKA10CT010	**GENERATOR NON DRIVING END BEARING TEMPERATURE**	ALARM		0- 150°C/	ADJUST TO 20C ABOVE MAX OPERATING TEMPERATURE
-	PT100	H2	C	- 90 - -	
MKA10CT015	**GENERATOR COOL AIR DRIVING END TEMPERATURE**	ALARM		0- 150°C/	-
-	PT100	H1	C	- 55 - -	
MKA10CT020	**GENERATOR WARM AIR TEMPERATURE**	-		0- 150°C/	SPARE
-	PT100	-	-	- - - -	
MKA10CT025	**GENERATOR COOL AIR NON DRIVING END TEMPERATURE**	ALARM		0- 150°C/	-
-	PT100	H1	C	- 55 - -	
MKA10CT030	**GENERATOR STATOR TEMPERATURE PHASE 1**	ALARM		0- 200°C/	ADJUST TO 10C ABOVE MAX OPERATING TEMPERATURE
-	PT100	H1	C	- 110 - -	
MKA10CT030	**GENERATOR STATOR TEMPERATURE PHASE 1**	TRIP		0- 200°C/	ADJUST TO 20C ABOVE MAX OPERATING TEMPERATURE
-	PT100	H2	C	- 120 - -	
MKA10CT035	**GENERATOR STATOR TEMPERATURE PHASE 2**	ALARM		0- 200°C/	ADJUST TO 10C ABOVE MAX OPERATING TEMPERATURE
-	PT100	H1	C	- 110 - -	
MKA10CT035	**GENERATOR STATOR TEMPERATURE PHASE 2**	TRIP		0- 200°C/	ADJUST TO 20C ABOVE MAX OPERATING TEMPERATURE
-	PT100	H2	C	- 120 - -	
MKA10CT040	**GENERATOR STATOR TEMPERATURE PHASE 3**	ALARM		0- 200°C/	ADJUST TO 10C ABOVE MAX OPERATING TEMPERATURE
-	PT100	H1	C	- 110 - -	
MKA10CT040	**GENERATOR STATOR TEMPERATURE PHASE 3**	TRIP		0- 200°C/	ADJUST TO 20C ABOVE MAX OPERATING TEMPERATURE
-	PT100	H2	C	- 120 - -	
MKA10CY005	**VIBRATION BEARING DRIVING END**	ALARM		0.0- 25.0mm/s/ 4-20mA	
-	VELOMITOR	H1	mm/s	- 4.5 - -	
MKA10CY005	**VIBRATION BEARING DRIVING END**	TRIP		0.0- 25.0mm/s/ 4-20mA	TRIP
-	VELOMITOR	H2	mm/s	- 8.0 - -	
MKA10CY010	**VIBRATION BEARING NOT DRIVING END**	ALARM		0.0- 25.0mm/s/ 4-20mA	
-	VELOMITOR	H1	mm/s	- 4.5 - -	
MKA10CY010	**VIBRATION BEARING NOT DRIVING END**	TRIP		0.0- 25.0mm/s/ 4-20mA	
-	VELOMITOR	H2	mm/s	- 8.0 - -	

Remark -			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	03.11.12		YAMAMA CEMENT	MK	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11	GENERATOR SYSTEM	Order no B4516	HG 9100	Archive - Lang. E
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KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN	NOM	MAX	TIME DELAY	REMARK
SAA10CP005	**DIFF. PRESSURE GASTURBINE ROOM FAN**	ALARM		0- 2kPa/ 4-20mA				-
-	DIFF. PRESSURE TRANSMITTER	L1	kPa	-	0.1	-	-	
SAG10CP003	**PRESSURE DOWNSTREAM INLET FILTER**	-		0- 0.5kPa/ -				-
-	DIFF. PRESSURE GAUGE	-	kPa	-	-	-	-	
SAG10CP005	**DIFF. PRESSURE GASTURBINE ROOM**	ALARM		0- 2kPa/ 4-20mA				-
-	DIFF. PRESSURE TRANSMITTER	H1	kPa	-	0.4	-	3 sec	
SAG10CP005	**DIFF. PRESSURE GASTURBINE ROOM**	ALARM		0- 2kPa/ 4-20mA				-
-	DIFF. PRESSURE TRANSMITTER	L1	kPa	-	0.05	-	-	
SAG10CP010	**DIFF. PRESSURE GASTURBINE ROOM FAN**	ALARM		0- 2kPa/ 4-20mA				Low pressure (L1) initiates a fan, switch - over.
-	DIFF. PRESSURE TRANSMITTER	L1	kPa	-	0.15	-	-	
SAG10CP010	**DIFF. PRESSURE GASTURBINE ROOM FAN**	TRIP		0- 2kPa/ 4-20mA				Low pressure (L2) initiates a turbine trip after 30 seconds.
-	DIFF. PRESSURE TRANSMITTER	L2	kPa	-	0.1	-	30	

Remark **-**			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	**03.11.12**	**VENTILATION SYSTEM**	**YAMAMA CEMENT**	**SAA/SAG**	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. **GPML**	Rev	**05.04.11**	**GAS TURBINE ROOM**	Order no **B4516** HG **9100**	Archive **-**	Lang. **E**
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. **d**	Rev	**06.11.13**	**AND AUXILLIARY ROOM**	**SIEMENS** Doc. no **2046040**		Sheet 22
Prepared by **S.MALMLÖV**		Rev	**07.01.12**	**SETTING LIST**			Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN	NOM	MAX	TIME DELAY	REMARK
SAC10CT005	**ROOM THERMOSTATE**	CONTROL		- /				-
-		-	ºC	-	20	-	-	
SAC20CT005	**ROOM THERMOSTATE**	CONTROL		- /				-
-		-	ºC	-	20	-	-	

Remark -			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	03.11.12	VENTILATION SYSTEM	YAMAMA CEMENT	SAC	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11	CONTROL ROOM	Order no B4516	HG 9100	Archive - Lang. E
Appr. by Nicklas Söderholm 2006-11-22	Latest rev. d	Rev	06.11.13		SIEMENS	Doc. no 2046040	Sheet 23
Prepared by S.MALMLÖV		Rev	07.01.12	SETTING LIST			Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN	NOM	MAX	TIME DELAY	REMARK
SAE30CP020	**PRESSURE GAUGE**	-		0- 0.5kPa/ -				-
-	-	-	kPa	-	-	-	-	
SAE40CP015	**DIFF. PRESS. INLET FILTER, GENERATOR**	ALARM		0- 2kPa/ 4-20 mA				-
-	DIFF. PRESSURE TRANSMITTER	H1	kPa	-	0,3	-	-	
SAE40CP025	**DIFF. PRESS. INLET FILTER, GENERATOR**	CLEANING OPERATION		-- --/ -				ON OP > 0,18 kPa OFF OP < 0,12 kPa
-	DIFF. PRESS. SWITCH WITH GAUGE	-	kPa	0,1	-	0,3	-	

Remark -			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	03.11.12	VENTILATION SYSTEM	YAMAMA CEMENT	SAE	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11	EL GENERATOR	Order no B4516 HG 9100	Archive -	Lang. E
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KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN	NOM	MAX	TIME DELAY	REMARK
SDB10AA205	**PRESSURE RELIEF VALVE**	SET		- /				MAX. UPPER LIMIT OF RANGE
-			Bar	-	70	-	-	
SDB10CL005	**LEVEL IN TANK BB005**	-		0- 80-/ -				-
-	LEVEL	-	L	-	-	-	-	
SDB10CL010	**LEVEL IN TANK BB005**	CONTROL		-- --/				NO SETTING
-	LEVEL SWITCH	-	L	-	10	-	-	
SDB10CL015	**LEVEL IN TANK BB010**	-		0- 80-/				-
-	LEVEL	-	L	-	-	-	-	
SDB10CL020	**LEVEL IN TANK BB010**	CONTROL		-- --/ -				NO SETTING
-	LEVEL SWITCH	-	L	-	10	-	-	
SDB10CP005	**PRESSURE AFTER PUMP AP005**	-		-- --/				-
-	PRESSURE GAUGE	-	Bar	0	70	160	-	
SDB10CP010	**PRESSURE AFTER PUMP AP005**	CONTROL		-- --/				NO SETTING
-	PRESSURE SWITCH		Bar	0	30	300	-	
SDB10CT005	**TEMPERATURE IN TANK BB005**	-		-- --/				-
-	TEMPERATURE GAUGE	-	°C	0	60	120	-	
SDB10CT010	**TEMPERATURE IN TANK BB005**	CONTROL		-- -C/				OPERATOR SETTING
-	TEMPERATUR SWITCH		°C	0	50	60	-	
SDB10CT015	**TEMPERATURE IN TANK BB010**	-		-- --/ -				-
-	TEMPERATURE GAUGE	-	°C	0	60	120	-	
SDB10CT020	**TEMPERATURE IN TANK BB010**	CONTROL		-- --/ -				OPERATOR SETTING
-	TEMPERATUR SWITCH	-	°C	0	50	60	-	
SDB60CL005	**LEVEL IN DRAINAGE TANK LOOKING GLASS**	-		- /				NO SETTING
-		-	m3	0.07	0.6	-	-	

Remark **-**			year-month-day	Title	Plant **YAMAMA CEMENT**	Des **SDB**	
Based on Doc no / revision		Orig	**03.11.12**				
Checked by Andreas Karlsson 2006-11-22	Resp. dept. **GPML**	Rev	**05.04.11**	**COMPRESSOR WASHING SYSTEM**	Order no **B4516** HG **9100**	Archive **-**	Lang. **E**
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KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN	NOM	MAX	TIME DELAY	REMARK
SFY10CQ005	**GAS DETECTION**	ALARM		0- 100LEL%/				HIGH GAS CONCENTRATION. START SEQ. INTERLOCK
-	GAS DETECTOR	H1	LEL%	-	10	-	-	
SFY10CQ005	**GAS DETECTION**	TRIP		0- 100LEL%/				HIGH-HIGH GAS CONCENTRATION
-	GAS DETECTOR	H2	LEL%	-	25	-	-	
SFY10CQ010	**GAS DETECTION**	ALARM		0- 100LEL%/				HIGH GAS CONCENTRATION. START SEQ. INTERLOCK.
-	GAS DETECTOR	H1	LEL%	-	10	-	-	
SFY10CQ010	**GAS DETECTION**	TRIP		0- 100LEL%/				HIGH-HIGH GAS CONCENTRATION
-	GAS DETECTOR	H2	LEL%	-	25	-	-	

Remark **-**			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	**03.11.12**	**GAS DETECTION SYSTEM**	**YAMAMA CEMENT**	**SFY**	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. **GPML**	Rev	**05.04.11**		Order no **B4516**	HG **9100**	Archive **-**	Lang. **E**
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Prepared by **S.MALMLÖV**		Rev	**07.01.12**	**SETTING LIST**				Tot. 28

KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN NOM MAX TIME DELAY	REMARK
SGJ10CG010	**BOTTLE CONTENT IN MAIN BATTERY BOTTLES FOR GAS TURBINE ENCLOSURE**	ALARM		90- 100%/ -	Not adjustable-
-	LIGHT BARRIER	L1	%	- 90 - -	
SGJ10CP005	**CONFIRMATION CO2-RELEASED SWITCH**	ALARM		0,4- 12MPa(g)/ -	NOT ADJUSTABLE
-	PRESSURE SWITCH	H1	MPa	0,4 6 12 0	
SGJ10CQ005	**FIRE DETECTION GAS TURBINE ENCLOSURE**	ALARM		780- 1180nm/ -	NOT ADJUSTABLE
-	IR flame detector	H1	nm	- N/A - -	
SGJ10CQ005	**FIRE DETECTION GAS TURBINE ENCLOSURE**	TRIP		780- 1180nm/ -	TWO DETECTORS GIVE TRIP NOT ADJUSTABLE
-	IR flame detector	H1	nm	- N/A - -	
SGJ10CQ010	**FIRE DETECTION GAS TURBINE ENCLOSURE**	TRIP		780- 1180nm/ -	TWO DETECTORS GIVE TRIP NOT ADJUSTABLE
-	IR flame detector	H1	nm	- N/A - -	
SGJ10CQ010	**FIRE DETECTION GAS TURBINE ENCLOSURE**	ALARM		780- 1180nm/ -	NOT ADJUSTABLE
-	IR flame detector	H1	nm	- N/A - -	
SGJ10CQ015	**FIRE DETECTION GAS TURBINE ENCLOSURE**	TRIP		780- 1180nm/ -	TWO DETECTORS GIVE TRIP NOT ADJUSTABLE
-	IR flame detector	H1	nm	- N/A - -	
SGJ10CQ015	**FIRE DETECTION GAS TURBINE ENCLOSURE**	ALARM		780- 1180nm/ -	NOT ADJUSTABLE
-	IR flame detector	H1	nm	- N/A - -	
SGJ10CQ020	**FIRE DETECTION GAS TURBINE ENCLOSURE**	TRIP		780- 1180nm/ -	TWO DETECTORS GIVE TRIP NOT ADJUSTABLE
-	IR flame detector	H1	nm	- N/A - -	
SGJ10CQ020	**FIRE DETECTION GAS TURBINE ENCLOSURE**	ALARM		780- 1180nm/ -	NOT ADJUSTABLE
-	IR flame detector	H1	nm	- N/A - -	
SGJ10CQ530	**FIRE DETECTION AUX. ENCLOSURE**	ALARM		780- 1180nm/ -	NOT ADJUSTABLE
-	IR flame detector	H1	nm	- N/A - -	
SGJ10CQ530	**FIRE DETECTION AUX. ENCLOSURE**	TRIP		780- 1180nm/ -	TWO DETECTORS GIVE TRIP NOT ADJUSTABLE
-	IR flame detector	H1	nm	- N/A - -	
SGJ10CT005	**FIRE DETECTION GAS TURBINE ENCLOSURE**	ALARM		0- 162ºC/ -	NOT ADJUSTABLE
-	HEAT DETECTOR	H1	°C	- 162 - -	
SGJ10CT005	**FIRE DETECTION GAS TURBINE ENCLOSURE**	TRIP		0- 162ºC/ -	TWO DETECTORS GIVE TRIP NOT ADJUSTABLE
-	HEAT DETECTOR	H1	°C	- 162 - -	
SGJ10CT010	**FIRE DETECTION GAS TURBINE ENCLOSURE**	TRIP		0- 162°C/ -	TWO DETECTORS GIVE TRIP NOT ADJUSTABLE
-	HEAT DETECTOR	H1	°C	- 162 - -	
SGJ10CT010	**FIRE DETECTION GAS TURBINE ENCLOSURE**	ALARM		0- 162°C/ -	NOT ADJUSTABLE
-	HEAT DETECTOR	H1	°C	- 162 - -	
SGJ10CT015	**FIRE DETECTION GAS TURBINE ENCLOSURE**	ALARM		0- 162°C/ -	NOT ADJUSTABLE
-	HEAT DETECTOR	H1	°C	- 162 - -	
SGJ10CT015	**FIRE DETECTION GAS TURBINE ENCLOSURE**	TRIP		0- 162°C/ -	TWO DETECTORS GIVE TRIP NOT ADJUSTABLE
-	HEAT DETECTOR	H1	°C	- 162 - -	
SGJ10CT020	**FIRE DETECTION GAS TURBINE ENCLOSURE**	ALARM		0- 162ºC/ -	NOT ADJUSTABLE
-	HEAT DETECTOR	H1	°C	- 162 - -	

Remark -			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	03.11.12	FIRE EXTINGUISHING SYSTEM CO2	YAMAMA CEMENT	SGJ	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11		Order no B4516	HG 9100	Archive - Lang. E
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KKS DES. CUSTOMER DES.	DESCRIPTION COMPONENT DESCRIPTION	FUNCTION	UNIT	SETTING MEASURING RANGE/OUTPUT MIN NOM MAX TIME DELAY	REMARK
SGJ10CT020	**FIRE DETECTION GAS TURBINE ENCLOSURE**	TRIP		0- 162ºC/ -	TWO DETECTORS GIVE TRIP
-	HEAT DETECTOR	H1	°C	- 162 - -	NOT ADJUSTABLE
SGJ10CT515	**FIRE DETECTION AUX. ENCLOSURE**	TRIP		0- 110ºC/ -	TWO DETECTORS GIVE TRIP
-	HEAT DETECTOR	H1	°C	- 94-110 - -	NOT ADJUSTABLE
SGJ10CT515	**FIRE DETECTION AUX. ENCLOSURE**	ALARM		0- 110ºC/ -	NOT ADJUSTABLE
-	HEAT DETECTOR	H1	°C	- 94-110 - -	
SGJ10CT520	**FIRE DETECTION AUX. ENCLOSURE**	ALARM		0- 110ºC/ -	NOT ADJUSTABLE
-	HEAT DETECTOR	H1	°C	- 94-110 - -	
SGJ10CT520	**FIRE DETECTION AUX. ENCLOSURE**	TRIP		0- 110ºC/ -	TWO DETECTORS GIVE TRIP
-	HEAT DETECTOR	H1	°C	- 94-110 - -	NOT ADJUSTABLE

Remark -			year-month-day	Title	Plant	Des	
Based on Doc no / revision		Orig	03.11.12	FIRE EXTINGUISHING SYSTEM CO2	YAMAMA CEMENT	SGJ	
Checked by Andreas Karlsson 2006-11-22	Resp. dept. GPML	Rev	05.04.11		Order no B4516	HG 9100	Archive - Lang. E
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