

TIMESHEET REPORT

Tele: +44 (0) 3300884720 Fax: +44 (0) 3300884721 info@orlandoaircon.co.uk

CUSTOMER NAME	SITE CONTACT (OPERAT	SHEET NUMBER						
SHANKLAND HVAC LTD	SITE ENGINE	SITE ENGINEER - HEMLOW FM						
SITE NAME & ADDRESS (PLANT OWNER F-GAS)	ENGINEER	STEVE ORLANDO		CLIENT ASSET NUMBER				
60 GRESHAM STREET, LONDON. EC2V 7BB	MATE	CHARLIE ORLANDO		01011				
REASON FOR VISIT QUOTED REPAIRS	MANUFACTURER	YORK	MODEL	YCIV0920PA50VABB				
JOB NUMBER J/N:2670. O/N:PO00042	SERIAL No.	RBTM022090	YEAR INSTALLED	04/03/2008				
PLANT LOCATION 5TH FLOOR HVAC PLANTROOM	REFIGERANT TYPE	R134A	TOTAL REF. CHARGE	194.0 KG				
PLANT REFERENCE YORK CHILLER (01011)	REFRIGERANT GWP	1430	IND. REF SYS. CHARGE	105 + 89 KG				
LOADS SERVED BASE BUILD COMFORT COOLING LOADS	EQUIV. TONNES CO2E	277.42	FGAS LEAK CHECK FREQ.	HALF YEARLY				
	·							

WORK CARRIED OUT:

ATTENDED SITE AND CARRIED OUT THE PHYSICAL ROTATION OF THE OUTPUT INVERTER POLES BETWEEN COMPRESSOR 1 & 2 ON THE YORK INVERTER PACK.

CLEANED HEAT EXCHANGE FACES AND APPLIED YORK HEAT SINK PASTE. RE-ASSEMBLED OUTPUT POLES. TORQUED BOLTS & NUTS TO YORK TABLES.

INSTALLED OSCILLOSCOPE TO SYSTEM 2 OUTPUT POLE (WAS SYSTEM 1'S; THE GOOD INVERTER POLE). CHECKED DC LINK VOLTAGE PROFILE, RESULTS WERE AS EXPECTED AND WITHIN

TOLERANCE. STARTED COMPRESSOR 2 AND SCOPED CURRENT PROFILE OF 2 PHASES, FOUND ALL WITHIN TOLERANCE.

RAN WHOLE INVERTER PACK TO 65%; 126 HZ WHERE SYSTEM 1 TRIPPED ON GATE DRIVER FAULT.

LEFT SYSTEM 2 RUNNING AND AVAILABLE.

ENGINEERS TIME ON SITE & TRAVEL							MATERIALS USED		
DATE	START	FINISH	TRAVEL	TOTAL	COMPLETE Y/N	MILEAGE	No. ENG	QUANTITY	DESCRIPTION
02/12/2019			3	10	Y	90	1	1	YORK HEAT SINK PASTE
	02/12/2019	DATE START 02/12/2019	DATESTARTFINISH02/12/2019	DATESTARTFINISHTRAVEL02/12/2019	DATESTARTFINISHTRAVELTOTAL02/12/201931010 </td <td>DATESTARTFINISHTRAVELTOTALCOMPLETE Y/N02/12/2019310Y310Y<!--</td--><td>DATESTARTFINISHTRAVELTOTALCOMPLETE Y/NMILEAGE02/12/2019310Y90909090909090Y90909090909090<!--</td--><td>DATESTARTFINISHTRAVELTOTALCOMPLETE Y/NMILEAGENo. ENG02/12/2019310Y9011111<!--</td--><td>DATESTARTFINISHTRAVELTOTALCOMPLETE Y/NMILEAGENo. ENGQUANTITY02/12/2019Y90111</br></td></td></td></td>	DATESTARTFINISHTRAVELTOTALCOMPLETE Y/N02/12/2019310Y310Y </td <td>DATESTARTFINISHTRAVELTOTALCOMPLETE Y/NMILEAGE02/12/2019310Y90909090909090Y90909090909090<!--</td--><td>DATESTARTFINISHTRAVELTOTALCOMPLETE Y/NMILEAGENo. ENG02/12/2019310Y9011111<!--</td--><td>DATESTARTFINISHTRAVELTOTALCOMPLETE Y/NMILEAGENo. ENGQUANTITY02/12/2019Y90111</br></td></td></td>	DATESTARTFINISHTRAVELTOTALCOMPLETE Y/NMILEAGE02/12/2019310Y90909090909090Y90909090909090 </td <td>DATESTARTFINISHTRAVELTOTALCOMPLETE Y/NMILEAGENo. ENG02/12/2019310Y9011111<!--</td--><td>DATESTARTFINISHTRAVELTOTALCOMPLETE Y/NMILEAGENo. ENGQUANTITY02/12/2019Y90111</br></td></td>	DATESTARTFINISHTRAVELTOTALCOMPLETE Y/NMILEAGENo. ENG02/12/2019310Y9011111 </td <td>DATESTARTFINISHTRAVELTOTALCOMPLETE Y/NMILEAGENo. ENGQUANTITY02/12/2019Y90111</br></td>	DATESTARTFINISHTRAVELTOTALCOMPLETE

CUSTOMER TO SIGN FOR ENGINEERS TIME ON SITE

CUSTOMERS SIGNATURE:

F-GAS QUALIFICATION:

ENGINEER SIGNATURE:

C&G 2079 PART 1

CUSTOMER NAME:

SITE ENGINEER

SYSTEM 1 - NEW OUTPUT TRANSISTOR POLE.							
USTOMER COMMENTS ABOUT PERFORMANCE ON THIS JOB / CONTRACT:							



LOG - SITE DATA CAPTURE

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CUSTOMER NAME		SITE CONTACT (OPERATOR RESPONSIBLE FOR F-GAS COMPLIANCE)		SHEET NUMBER		
SHANKLAND HVAC LTD		SITE ENGINEER - HEMLOW FM			08540	
SITE NAME & ADDRE	SS	ENGINEER	STEVE ORLANDO		CLIENT ASSET NUMBER	
60 GRESHAM STR	EET, LONDON. EC2V 7BB	F-GAS QUALIFICATIO	NC&G 2079 PART 1			01011
REASON FOR VISIT	QUOTED REPAIRS	MANUFACTURER	YORK	MODEL	YCIV0920PA50VABB	
JOB NUMBER	J/N:2670. O/N:PO00042	SERIAL No.	RBTM022090	YEAR INSTALLED	04/03/2008	
PLANT LOCATION	5TH FLOOR HVAC PLANTROOM	REFRIGERANT TYPE	R134A	QUANTITY (KG)	194.0 KG	
PLANT REFERENCE	YORK CHILLER (01011)	CLG LOAD SERVED	BASE BUILD COMFORT COOLING	LOADS		

CONTROLLER LOG CAPTURE - SYSTEM 2 LAST FAULT LOG

YORK INTERNATIONAL CORPORATION LATITUDE SCREW CHILLER

HISTORY NUMBER 1 10:54:15 AM 22 OCT 2019

SYS 2 FAULT: GATE DRIVER

STATUS AT TIME OF SHUTDOWN SYS 1 COMPRESSOR RUNNING SYS 2 COMPRESSOR RUNNING

SYSTEM 1 DATA	
COMPRESSOR STATUS	ON
RUN TIME 0- 0- 8-4	9 D-H-M-S
MOTOR CURRENT 201 AMPS	61 %FLA
SUCTION PRESSURE	2.61 BARG
DISCHARGE PRESSURE	8.0 BARG
OIL PRESSURE	7.2 BARG
SUCTION TEMPERATURE	10.2 DEGC
DISCHARGE TEMPERATURE	48.4 DEGC
OIL TEMPERATURE	32.8 DEGC
SAT SUCTION TEMP	6.0 DEGC
SUCTION SUPERHEAT	4.2 DEGC
SAT DISCHARGE TEMP	35.6 DEGC
DISCHARGE SUPERHEAT	12.9 DEGC
MOTOR TMP 55.8 57.9	41.4 DEGC
COMPRESSOR LOAD	49.5 %
ECONOMIZER	OFF
FLASH TANK LEVEL	9.7 %
FEED VALVE % OPEN	48.8 %
DRAIN VALVE % OPEN	42.6 %
CONDENSER FANS ON	6
COMPRESSOR HEATER	OFF
RUN PERMISSIVE	ON
VSD RUN RELAY	ON
VSD SOFTWARE RUN SIGNAL	ON

ALL FAULTS		OIL PRESSURE SUCTION TEMPER/
NO FAULTS		DISCHARGE TEMPI
OPTIONS		OIL TEMPERATURE
CHILLED LIQUID	WATER	SAT SUCTION TEP
LOCAL/REMOTE MODE	REMOTE	SUCTION SUPERH
LEAD/LAG CONTROL	AUTOMATIC	SAT DISCHARGE 1
LOW AMBIENT CUTOUT	DISABLED	MOTOR TMP 55.8
PROGRAM VALUE	S	COMPRESSOR LOAD
SUCT PRESS CUTOUT	1.65 BARG	ECONOMIZER
LOW AMBIENT CUTOUT	-17.8 DEGC	FLASH TANK LEVE
LEAVING LIQUID CUTOUT	2.2 DEGC	FEED VALVE % OF
MOTOR CURRENT LIMIT		DRAIN VALVE % (
PULLDOWN CURRENT LIMIT	50 %FLA	CONDENSER FANS
PULLDOWN LIMIT TIME		COMPRESSOR HEAT
SUCTION SUPERHEAT SETP	5.5 DEGC	RUN PERMISSIVE
UNIT ID NUMBER	0	VSD RUN RELAY
		VSD SOFTWARE RU
UNIT DATA		
LEAVING LIQUID TEMP	7.6 DEGC	SYSTE
RETURN LIQUID TEMP	11.8 DEGC	COMPRESSOR STAT
COOLING RANGE 8.0 +/	- 1.4 DEGC	RUN TIME (
REMOTE SETPOINT	XX.X DEGC	MOTOR CURRENT
AMBIENT AIR TEMP	19.1 DEGC	SUCTION PRESSUR
LEAD SYSTEM	SYS 1	DISCHARGE PRESS
FLOW SWITCH	ON	OIL PRESSURE
EVAPORATOR PUMP RUN	ON	SUCTION TEMPER/
EVAPORATOR HEATER	OFF	DISCHARGE TEMPI

SYSTEM 2 DATA

COMPRESSOR STATUS	ON
RUN TIME 0- 0- 8-49	D-H-M-S
MOTOR CURRENT 189 AMPS	60 %FLA
SUCTION PRESSURE 2	.70 BARG
DISCHARGE PRESSURE	7.9 BARG
OIL PRESSURE	7.3 BARG
SUCTION TEMPERATURE	9.2 DEGC
DISCHARGE TEMPERATURE 4	8.1 DEGC
OIL TEMPERATURE 3	5.0 DEGC
SAT SUCTION TEMP	6.7 DEGC
SUCTION SUPERHEAT	2.4 DEGC
SAT DISCHARGE TEMP 3	5.2 DEGC
DISCHARGE SUPERHEAT 1	2.9 DEGC
MOTOR TMP 56.2 54.6 4	1.4 DEGC
COMPRESSOR LOAD	49.5 %
ECONOMIZER	OFF
FLASH TANK LEVEL	0.0 %
FEED VALVE % OPEN	57.9 %
DRAIN VALVE % OPEN	30.7 %
CONDENSER FANS ON	6
COMPRESSOR HEATER	OFF
RUN PERMISSIVE	ON
VSD RUN RELAY	ON
VSD SOFTWARE RUN SIGNAL	ON

ACTIVE REMOTE CONTROL	NONE
OPERATING HOURS 1=25968,	2=32289
START COUNTER 1=66161,	2=27809
SOFTWARE VERSION C.A	09.15.03
UNIT SERIAL NUMBER RBTH	M 022090

VSD DATA	
ACTUAL FREQUENCY	99.0 HZ
COMMAND FREQUENCY	99.0 HZ
DC BUS VOLTAGE	558 VDC
INTERNAL AMBIENT TEMP	29.5 DEGC
COOLING SYSTEM STATUS	ON
BASEPLATE TEMP 50.6,	52.8 DEGC
PRECHARGE SIGNAL	ON
MOTOR OVERLOADS 1/2 344	4 328 AMPS
VSD SOFTWARE VERSION C.	VSD.89.00



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60 GRESHAM STR	EET, LONDON. EC2V 7BB	F-GAS QUALIFICATIO	NC&G 2079 PART 1			01011
REASON FOR VISIT	QUOTED REPAIRS	MANUFACTURER	YORK	MODEL	YCIV0920PA50VABB	
JOB NUMBER	J/N:2670. O/N:PO00042	SERIAL No.	RBTM022090	YEAR INSTALLED	04/03/2008	
PLANT LOCATION	5TH FLOOR HVAC PLANTROOM	REFRIGERANT TYPE	R134A	QUANTITY (KG)	194.0 KG	
PLANT REFERENCE	YORK CHILLER (01011)	CLG LOAD SERVED	BASE BUILD COMFORT COOLING LO	DADS		

CONTROLLER LOG CAPTURE - FAULT MOVED TO SYSTEM 1

YORK INTERNATIONAL CORPORATION LATITUDE SCREW CHILLER

HISTORY NUMBER 1 12:35:40 PM 02 DEC 2019

SYS 1 FAULT: GATE DRIVER

STATUS AT TIME OF SHUTDOWN SYS 1 COMPRESSOR RUNNING SYS 2 COMPRESSOR RUNNING

SYSTEM 1 DATA COMPRESSOR STATUS ON RUN TIME 0- 0- 6- 2 D-H-M-S MOTOR CURRENT 222 AMPS 67 %FLA

	POTON CONNENT 222 APPES 07 AFEA
	SUCTION PRESSURE 2.32 BARG
ALL FAULTS	DISCHARGE PRESSURE 9.7 BARG
UNIT FAULT:	OIL PRESSURE 8.9 BARG
MOTOR CURRENT OVERLOAD	SUCTION TEMPERATURE 11.6 DEGC
	DISCHARGE TEMPERATURE 51.3 DEGC
OPTIONS	OIL TEMPERATURE 37.5 DEGC
CHILLED LIQUID WATER	SAT SUCTION TEMP 3.6 DEGC
LOCAL/REMOTE MODE REMOTE	SUCTION SUPERHEAT 8.0 DEGC
LEAD/LAG CONTROL AUTOMATIC	SAT DISCHARGE TEMP 42.2 DEGC
LOW AMBIENT CUTOUT DISABLED	DISCHARGE SUPERHEAT 9.1 DEGC
	MOTOR TMP 57.4 59.2 42.1 DEGC
PROGRAM VALUES	COMPRESSOR LOAD 63.3 %
SUCT PRESS CUTOUT 1.65 BARG	ECONOMIZER ON
LOW AMBIENT CUTOUT -17.8 DEGC	FLASH TANK LEVEL 8.4 %
LEAVING LIQUID CUTOUT 2.2 DEGC	FEED VALVE % OPEN 45.2 %
MOTOR CURRENT LIMIT 100 %FLA	DRAIN VALVE % OPEN 55.0 %
PULLDOWN CURRENT LIMIT 50 %FLA	CONDENSER FANS ON 4
PULLDOWN LIMIT TIME 0 MIN	COMPRESSOR HEATER OFF
SUCTION SUPERHEAT SETP 5.5 DEGC	RUN PERMISSIVE ON
UNIT ID NUMBER 0	VSD RUN RELAY ON
	VSD SOFTWARE RUN SIGNAL ON
UNIT DATA	VED SOFTIMENC NUM STOMAL ON
LEAVING LIQUID TEMP 6.9 DEGC	SYSTEM 2 DATA
RETURN LIQUID TEMP 12.1 DEGC	
THE FORMER PROPERTY AND AND A DESIGN AND A D	COMPRESSOR STATUS ON

XX.X DEGC

12.3 DEGC

SYS 1

ON

ON

OFF

COMPRESSOR STATUS		ON
RUN TIME 0-0-6-	2 D-ł	I-M-S
MOTOR CURRENT 210 AMPS	67	%FLA
SUCTION PRESSURE	2.37	BARG
DISCHARGE PRESSURE	9.7	BARG
OIL PRESSURE	9.1	BARG
SUCTION TEMPERATURE	11.4	DEGC
DISCHARGE TEMPERATURE	50.3	DEGC
OIL TEMPERATURE	38.6	DEGC
SAT SUCTION TEMP	4.1	DEGC
SUCTION SUPERHEAT	7.4	DEGC
SAT DISCHARGE TEMP	42.1	DEGC
DISCHARGE SUPERHEAT	8.2	DEGC
MOTOR TMP 55.2 52.7	40.6	DEGC
COMPRESSOR LOAD	63	3.3 %
ECONOMIZER		ON
FLASH TANK LEVEL	6	3.0 %
FEED VALVE % OPEN	53	3.0 %
DRAIN VALVE % OPEN	- 48	3.0 %
CONDENSER FANS ON		4
COMPRESSOR HEATER		OFF
RUN PERMISSIVE		ON
VSD RUN RELAY		ON
VSD SOFTWARE RUN SIGNAL		ON

ACTIVE REMOTE CON	ITROL NONE
OPERATING HOURS 1	=26511, 2=32290
START COUNTER 1	=67550, 2=27816
SOFTWARE VERSION	C.A09.15.03
UNIT SERIAL NUMBE	R RBTM 022090

COOLING RANGE 4.5 +/- 1.4 DEGC

REMOTE SETPOINT

LEAD SYSTEM

FLOW SWITCH

AMBIENT AIR TEMP

EVAPORATOR PUMP RUN

EVAPORATOR HEATER

VSD DATA

ACTUAL FREQUENCY	126.6 HZ
COMMAND FREQUENCY	127.0 HZ
DC BUS VOLTAGE	557 VDC
INTERNAL AMBIENT TEMP	24.4 DEGC
COOLING SYSTEM STATUS	ON
BASEPLATE TEMP 67.2,	51.7 DEGC
PRECHARGE SIGNAL	ON
MOTOR OVERLOADS 1/2 344	4 328 AMPS
VSD SOFTWARE VERSION C.	.VSD.89.00



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PLANT REFERENCE YORK CHILLER (01011)	CLG LOAD SERVED	BASE BUILD COMFORT COOLING LOA	DS		

SITE PICTURE LOG









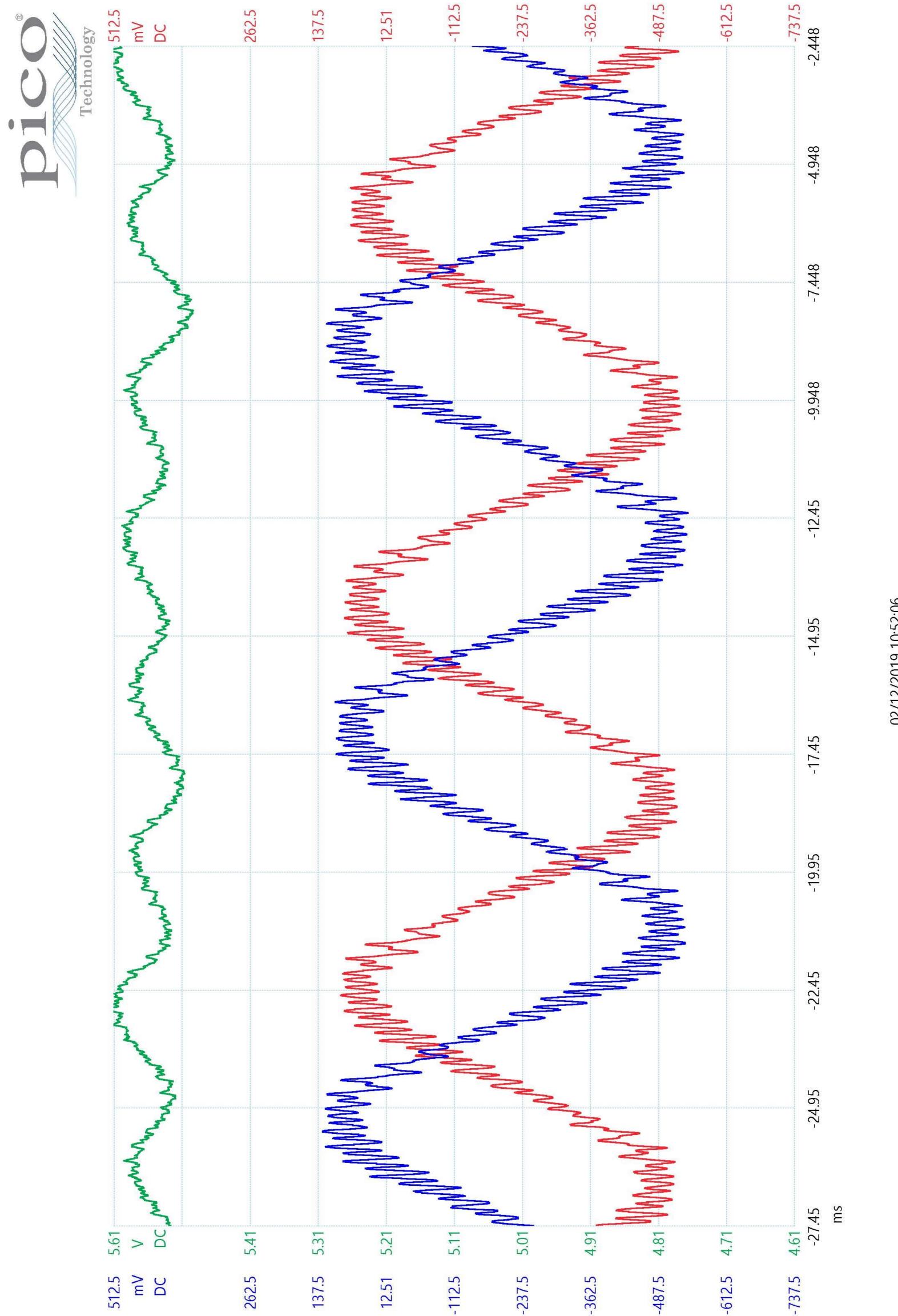
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PLANT REFERENCE YORK CHILLER (01011)	CLG LOAD SERVED	BASE BUILD COMFORT COOLING	LOADS		

OSCILLOSCOPE LOG OF DC LINK AND TRANSISTOR PACK OUTPUT CURRENT - COMP 1



02/12/2019 10:52:06

< = RMS)
= RMS)</pre> * PEAK * PEAK CURRANT CLAMP 1MV-1AMP PEAK (0.70) RED TRACE - CURRANT CLAMP 1MV-1AMP PEAK (0.707 Green - DC BUS voltage 1MV = 1 volt Peak BLUE TRACE -

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