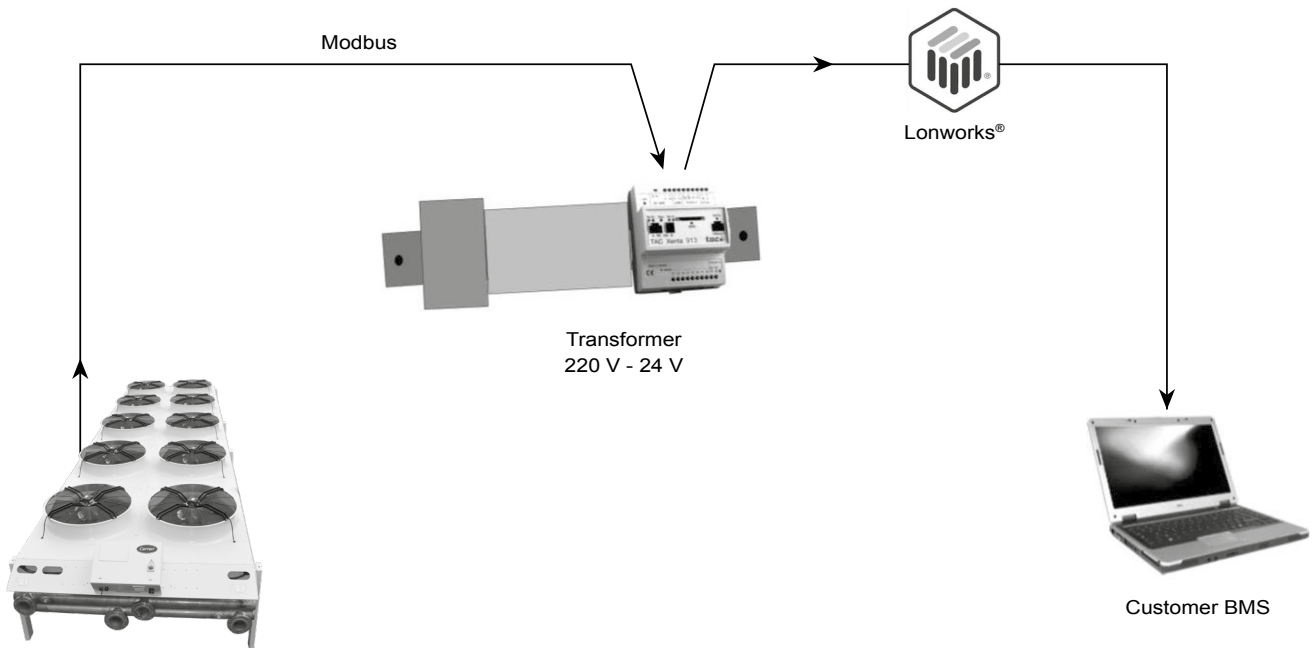


LON GATEWAY KIT



Using the ModBus RS485/LON gateway kit

This ModBus/LON gateway kit makes it possible to convert most messages on the device control that are available in the standard ModBus protocol to the LON protocol (see the end of this document for the lists of messages that are available in the LON protocol).

System start-up service	Responsible		
	manufacturer	Installer	Integrator
Installation of gateway kit		X	
Check of gateway kit connection on RS485 - ModBus end		X	
Check of gateway kit on RS485 - LON end		X	
Commissioning of device	(1)	(2)	
Implementation of ModBus/LON communication			X

(1): Service provided by manufacturer if manufacturer warranty extension (including commissioning) purchased

(2): Service provided by installer if commissioning by manufacturer not purchased

Note: The ModBus RS485/LON gateway will not operate properly unless it is connected to a Building Management System (not in standard supplied)

LON INTERFACE

The kit is designed to allow communication between units, equipped with a regulator, to another device with a LON Protocol. Gateway allows the translation in LON of main information available in MODBUS (see tables below) Messages are previously uploaded in factory and ready for use.

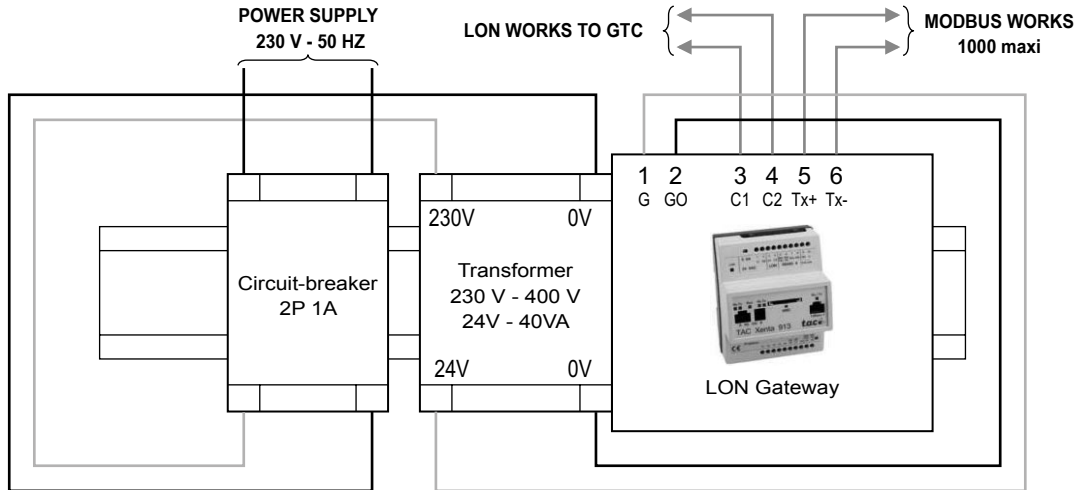
The kit is composed of:

- A rail DIN
- A circuit breaker
- A transformer
- A gateway MODBUS /LON

The entire kit is supplied pre-wired.

As the layout of cabinets for machines is optimised, we recommend installing the kit in a cabinet outside the unit.

The cabinet must be placed in a room where the temperature is kept at between 0°C and 50°C.



Parameters list for CHILLER/HEATPUMP CONTROL kit

Description of available LON data with the name of variables			
CHILLER/HEATPUMP CONTROL	nvi (Writing)	nvo (Reading)	Unit
Actual operating mode		nvoModeFctReel	
Outdoor air temperature		nvoOutdoorTemp	°C
Control setpoint		nvoActiveSetpt	°C
Chilled water inlet temperature		nvoEntChwTemp	°C
Chilled water outlet temperature		nvoLvgChwTemp	°C
Hot water temperature		nvoTempCondens	°C
Number of stages on		nvoNbEtageFct	
Heating mode runtime (in hours)		nvoNbfctChaud	h
Cooling mode runtime (in hours)		nvoNbfctFroid	h
Pump 1 runtime (in hours)		nvoNbfctPompe1	h
Pump 2 runtime (in hours)		nvoNbfctPompe2	h

Description of available LON data with the name of variables			
CHILLER/HEATPUMP CONTROL	nvi (Writing)	nvo (Reading)	Unit
Number of starts, stage 1, circuit 1		nvoNbDemarEta1C1	
Stage 1, circuit 1 runtime		nvoMarcheEta1C1	h
Number of starts, stage 2, circuit 1		nvoNbDemarEta2C1	
Stage 2, circuit 1 runtime		nvoMarcheEta2C1	h
Number of starts, stage 1, circuit 2		nvoNbDemarEta1C2	
Stage 1, circuit 2 runtime		nvoMarcheEta1C2	h
Number of starts, stage 2, circuit 2		nvoNbDemarEta2C2	
Stage 2, circuit 2 runtime		nvoMarcheEta2C2	h
Cooling setpoint 1	nviCoolSetpt1	nvoCoolSetpt1	°C
Cooling setpoint 2	nviCoolSetpt2	nvoCoolSetpt2	°C
Heating setpoint 1	nviHeatSetpt1	nvoHeatSetpt1	°C
Heating setpoint 2	nviHeatSetpt2	nvoHeatSetpt2	°C
Year	nviAnnee	nvoAnnee	Year
Month	nviMois	nvoMois	Month
Day of the month	nviJourMois	nvoJourMois	
Day of the week		nvoJourSemaine	
Hour	nviHeure	nvoHeure	h
Minute	nviMinute	nvoMinute	mn
Voltage between phases 1 and 2		nvoTensPh12	V
Voltage between phases 2 and 3		nvoTensPh23	V
Voltage between phases 1 and 3		nvoTensPh13	V
Instantaneous current input		nvoIntAbs	A
Instantaneous power consumption		nvoPConsoIns	W
Power consumption	nviRAZNrjConso	nvoEConso	Wh
Time before tightness check		nvoAvantCtrlEtan	Day
Time before maintenance		nvoAvantMaint	Day or h

Description of available LON data with the name of variables			
CHILLER/HEATPUMP CONTROL	nvi (Writing)	nvo (Reading)	
On/Off	nviChillerEnable	nvoChillerEnable	
Regulation on setting 1 or 2	nviChoixConsigne	nvoChoixConsigne	
Cooling or heating mode	nviChaudFroid	nvoChaudFroid	
Load shedding stop, stage 1, circuit 1	nviDelestArEt1C1	nvoDelestArEt1C1	
Load shedding stop, stage 2, circuit 1	nviDelestArEt2C1	nvoDelestArEt2C1	
Load shedding stop, stage 1, circuit 2	nviDelestArEt1C2	nvoDelestArEt1C2	
Load shedding stop, stage 2, circuit 2	nviDelestArEt2C2	nvoDelestArEt2C2	
Activation of load shedding (only if P117 = over bus)	nviDelestEnerg	nvoDelestEnerg	
On/Off summary (1 = keypad on/off = 1 and all automatic operation controls closed and no oil warm-up time and no faults)		nvoOnOffPasDef	

Description of available LON data with the name of variables		
CHILLER/HEATPUMP CONTROL	nvi (Writing)	nvo (Reading)
1 = Cooling possible		nvoModeFctFrdPos
1 = Heating possible		nvoModeFctChdPos
1 = 1 active stage		nvo1EtageActif
1 = Maximum available power reached		nvoPMaxDispoAtt
1 = A major fault preventing output has occurred		nvoPresDefMajeur
1 = A reset fault has occurred but output is possible		nvoPresDefRearm
1 = A fault requiring servicing has occurred		nvoPresDefASup
On/Off summary (on/off + AO)		nvoOnOff
Pump 1 status		nvoMarchePompe1
Pump 2 status		nvoMarchePompe2
Status of stage 1, circuit 1		nvoEtage1Circuit1
Status of stage 2, circuit 1		nvoEtage2Circuit1
Status of stage 1, circuit 2		nvoEtage1Circuit2
Status of stage 2, circuit 2		nvoEtage2Circuit2
Status of auxiliary electric heater 1 or boiler		nvoAppoint1
Status of auxiliary electric heater 2		nvoAppoint2
Status of auxiliary electric heater 3		nvoAppoint3
Status of auxiliary electric heater 4		nvoAppoint4
General fault summary		nvoSyntDefGen
Phase controller fault		nvoDefCtrlPhases
Water flow fault		nvoDefDebitEau
Pump 1 fault		nvoDefPompe1
Pump 2 fault		nvoDefPompe2
Pump fault, one loop		nvoDefPompe1Bou
Pump fault, two loops		nvoDefPompe2Bou
Heat exchanger inlet sensor fault		nvoDefSondeEEch
Heat exchanger outlet sensor fault e		nvoDefSondeSEch
Outdoor temperature sensor fault		nvoDefSondeTExt
Condenser sensor fault		nvoDefSondeCond
Manifold outlet sensor fault		nvoDefSondeSColl
Fan fault		nvoDefVentil
EEPROM fault		nvoDefEEPROM
Loop inlet sensor fault (Multigroup Control)		nvoDefSondeEBouc
Loop outlet sensor fault (Multigroup Control)		nvoDefSondeSBouc
Drycooler Control link fault		nvoDefLiaiAeroCo
Outdoor temperature too high in cooling mode		nvoDefTExtHaute
Change of operating mode fault		nvoDefCgtModeFct
Winter protection		nvoSecuHiver
Exchanger ambient sensor fault		nvoDefSondeAbEch
Extra heater board connection fault		nvoDefCarteAppEI
Hybrid heat pump board connection fault		nvoDefCarteHybri
Gas module output sensor fault		nvoDefSondeMoGaz
Tightness check fault		nvoDefCtrlEtan
Maintenance fault		nvoDefMaint

Description of available LON data with the name of variables		
CHILLER/HEATPUMP CONTROL	nvi (Writing)	nvo (Reading)
Circuit 1 fault summary		nvoSyntDefC1
Stage 1, circuit 1 fault		nvoDefEtag1C1
Stage 2, circuit 2 fault		nvoDefEtag2C1
Man. HP fault, circuit 1		nvoDefHPManuC1
Circuit 1 HP fault		nvoDefHPC1
Circuit 1 LP fault		nvoDefBPC1
Water frosting fault, circuit 1		nvoDefGelEauC1
Refrigerant frosting fault, circuit 1		nvoDefGelFFrigC1
Exchanger frosting fault, circuit 1		nvoDefGelEchC1
Discharge fault, stage 1, circuit 1		nvoDefRefEta1C1
Discharge fault, stage 2, circuit 1		nvoDefRefEta2C1
Defrosting fault, circuit 1		nvoDefDegivragC1
Expansion valve fault, circuit 1		nvoDefDetendC1
Stepper motor fault, circuit 1 expansion valve		nvoDefMotDetC1
Low superheat fault, circuit 1		nvoDefSurBasC1
High superheat fault, circuit 1		nvoDefSurHautC1
VCM module fault, expansion valve 1		nvoDefVCMdet1
Exchanger outlet sensor fault, circuit 1		nvoDefSondeSEcC1
Exchanger freon sensor fault, circuit 1		nvoDefSondeFEcC1
Sensor fault, coil A, circuit 1		nvoDefSondeBAC1
Sensor fault, coil B, circuit 1		nvoDefSondeBBC1
Sensor fault, coil C, circuit 1		nvoDefSondeBCC1
Sensor fault, coil D, circuit 1		nvoDefSondeBDC1
Discharge sensor fault, stage 1, circuit 1		nvoDefSondeRE1C1
Discharge sensor fault, stage 2, circuit 1		nvoDefSondeRE2C1
Circuit 1 HP sensor fault		nvoDefCaptHPC1
Circuit 1 LP sensor fault		nvoDefCaptBPC1
Circuit 1 suction sensor fault		nvoDefSondeAspC1
Circuit 1 liquid sensor fault		nvoDefSondeLiqC1
Circuit 1 expansion valve board link fault		nvoDefLiaCDC1
Link fault, additional board for reversible		nvoDefCarteAdRev
Tsat discharge fault, Inverter compressor		nvoDefReTComplnv
Mechanical fault, Inverter compressor		nvoDefMecComplnv
Load shedding, stage 1, circuit 1		nvoDelestEt1C1
Load shedding, stage 2, circuit 1		nvoDelestEt2C1
Circuit 2 fault summary		nvoSyntDefC2
Stage 1, circuit 2 fault		nvoDefEtag1C2
Stage 2, circuit 2 fault		nvoDefEtag2C2
Man. HP fault, circuit 2		nvoDefHPManuC2
Circuit 2 LP fault		nvoDefHPC2
Circuit 2 LP fault		nvoDefBPC2
Water frosting fault, circuit 2		nvoDefGelEauC2
Refrigerant frosting fault, circuit 2		nvoDefGelFFrigC2

Description of available LON data with the name of variables		
CHILLER/HEATPUMP CONTROL	nvi (Writing)	nvo (Reading)
Exchanger frosting fault, circuit 2		nvoDefGelEchC2
Discharge fault, stage 1, circuit 2		nvoDefRefEta1C2
Discharge fault, stage 2, circuit 2		nvoDefRefEta2C2
Defrosting fault, circuit 2		nvoDefDegivragC2
Expansion valve fault, circuit 2		nvoDefDetendC2
Stepper motor fault, circuit 2 expansion valve		nvoDefMotDetC2
Low superheat fault, circuit 2		nvoDefSurBasC2
High superheat fault, circuit 2		nvoDefSurHautC2
VCM module fault, expansion valve 2		nvoDefVCMdet2
Exchanger outlet sensor fault, circuit 2		nvoDefSondeSEcC2
Exchanger freon sensor fault, circuit 2		nvoDefSondeFEcC2
Sensor fault, coil A, circuit 2		nvoDefSondeBAC2
Sensor fault, coil B, circuit 2		nvoDefSondeBBC2
Sensor fault, coil C, circuit 2		nvoDefSondeBCC2
Sensor fault, coil D, circuit 2		nvoDefSondeBDC2
Discharge sensor fault, stage 1, circuit 2		nvoDefSondeRE1C2
Discharge sensor fault, stage 2, circuit 2		nvoDefSondeRE2C2
Circuit 2 HP sensor fault		nvoDefCaptHPC2
Circuit 2 LP sensor fault		nvoDefCaptBPC2
Circuit 2 suction sensor fault		nvoDefSondeAspC2
Circuit 2 liquid sensor fault		nvoDefSondeLiqC2
Circuit 2 exp. valve board link fault		nvoDefLiaCDC2
Load shedding, stage 1, circuit 2		nvoDelestEt1C2
Load shedding, stage 2, circuit 2		nvoDelestEt2C2

Parameters list for CHILLER CONTROL kit

Description of available LON data with the name of variables			
CHILLER CONTROL	nvi (Writing)	nvo (Reading)	Unit
Actual operating mode		nvoModeFctReel	
Outdoor air temperature		nvoOutdoorTemp	°C
Control setpoint		nvoActiveSetpt	°C
Evaporator inlet temperature		nvoEntChwTemp	°C
Evaporator water outlet temperature		nvoLvgChwTemp	°C
Condenser inlet temperature		nvoEntCndWTemp	°C
Condenser outlet temperature		nvoLvgCndWTemp	°C
Manifold outlet temperature (modules 1 and 2)		nvoLvgColTmPM1M2	°C
Master/slave manifold outlet temperature (2 machines)		nvoLvgColIME2Mach	°C
Number of stages on		nvoNbEtagFct	

Description of available LON data with the name of variables			
CHILLER CONTROL	nvi (Writing)	nvo (Reading)	Unit
Heating mode runtime (in hours)		nvoNbHFctChaud	h
Cooling mode runtime (in hours)		nvoNbHFctFroid	h
Pump 1 runtime (in hours)		nvoNbHFctPompe1	h
Pump 2 runtime (in hours)		nvoNbHFctPompe2	h
Number of compressor 1 starts		nvoNbDemarComp1	
Compressor 1 runtime		nvoTpsMarcheComp1	h
Number of compressor 2 starts		nvoNbDemarComp2	
Compressor 2 runtime		nvoTpsMarcheComp2	h
Number of compressor 3 starts		nvoNbDemarComp3	
Compressor 3 runtime		nvoTpsMarcheComp3	h
Cooling 1 setpoint adjustment	nviCoolSetpt1	nvoCoolSetpt1	°C
Cooling 2 setpoint adjustment	nviCoolSetpt2	nvoCoolSetpt2	°C
Heating 1 setpoint adjustment	nviHeatSetpt1	nvoHeatSetpt1	°C
Heating 2 setpoint adjustment	nviHeatSetpt2	nvoHeatSetpt2	°C
Year	nviAnnee	nvoAnnee	Year
Month	nviMois	nvoMois	Month
Day of the month	nviJourMois	nvoJourMois	
Day of the week		nvoJourSemaine	
Hour	nviHeure	nvoHeure	h
Minute	nviMinute	nvoMinute	mn
Voltage between phases 1 and 2 (module 1)		nvoTensPh12Mod1	V
Voltage between phases 2 and 3 (module 1)		nvoTensPh23Mod1	V
Voltage between phases 1 and 3 (module 1)		nvoTensPh13Mod1	V
Current input (module 1) / Intensità assorbita, modulo 1		nvoIntAbsMod1	A
Instantaneous power consumption (module 1)		nvoPConsoInsMod1	W
Module 1 power consumption (kW/h)	nviRAZnrjConso	nvoEConsoMod1	Wh
Voltage between phases 1 and 2 (module 2)		nvoTensPh12Mod2	V
Voltage between phases 2 and 3 (module 2)		nvoTensPh23Mod2	V
Voltage between phases 1 and 3 (module 2)		nvoTensPh13Mod2	V
Current input (module 2)		nvoIntAbsMod2	A
Instantaneous power consumption (module 2)		nvoPConsoInsMod2	W
Module 2 power consumption (kW/h)		nvoEConsoMod2	Wh
Total current input		nvoIntAbsTot	A
Total instantaneous power consumption		nvoPConsoInsTot	W
Total power consumption (kW)		nvoEConsoTot	Wh
Time before tightness check		nvoAvantCtrlEtan	Day
Time before maintenance		nvoAvantMaint	Day or h

Description of available LON data with the name of variables		
CHILLER CONTROL	nvi (Writing)	nvo (Reading)
On /OFF	nviChillerEnable	nvoChillerEnable
Regulation on setting 1 or 2	nviChoixConsigne	nvoChoixConsigne
Cooling or heating mode	nviChaudFroid	nvoChaudFroid
Shedding by ModBus stop compressor 1 (different from 0 x 140)	nviDelestArCp1	nvoDelestArCp1
Load shedding via Modbus, compressor 1 at min. capacity	nviDelestCp1PMin	nvoDelestCp1PMin
Load shedding via Modbus, compressor 2 off	nviDelestArCp2	nvoDelestArCp2
Load shedding via Modbus, compressor 2 at min. capacity	nviDelestCp2PMin	nvoDelestCp2PMin
Load shedding via Modbus, compressor 3 off	nviDelestArCp3	nvoDelestArCp3
Load shedding via Modbus, compressor 3 at min. capacity	nviDelestCp3PMin	nvoDelestCp3PMin
Activation of load shedding (only if P117 = over bus)	nviDelestEnerg	nvoDelestEnerg
On/Off summary (1 = keypad on/off = 1 and all automatic operation controls closed and no oil warm-up time and no faults)		nvoOnOffPasDef
1 = Cooling possible		nvoModeFctFrdPos
1 = Heating possible		nvoModeFctChdPos
1 = 1 active stage		nvo1EtageActif
1 = Maximum available power reached		nvoPMaxDispoAtt
1 = A major fault preventing output has occurred		nvoPresDefMajeur
1 = A reset fault has occurred but output is possible		nvoPresDefRearm
1 = A fault requiring servicing has occurred		nvoPresDefASup
On/Off summary (on/off + AO)		nvoOnOff
Pump 1 status		nvoMarchePompe1
Pump 2 status		nvoMarchePompe2
Compressor 1 output state		nvoMarcheComp1
Compressor 2 output state		nvoMarcheComp2
Compressor 3 output state		nvoMarcheComp3
Energy limiter on		nvoLimEnergEncl
General fault summary		nvoSyntDefGen
Phase controller fault		nvoDefCtrlPhases
Water flow fault		nvoDefDebitEau
Pump 1 fault		nvoDefPompe1
Pump 2 fault		nvoDefPompe2
Pump fault, one loop		nvoDefPompe1Bou
Pump fault, two loops		nvoDefPompe2Bou
Evaporator inlet sensor fault		nvoDefSondeEEvap
Evaporator outlet sensor fault		nvoDefSondeSEvap
Outdoor temperature sensor fault		nvoDefSondeTExt
Condenser inlet sensor fault		nvoDefSondeECond
Manifold outlet sensor fault for machine with 500 kW module		nvoDefSondeSColl
Fan fault		nvoDefVentil
EEPROM fault		nvoDefEEPROM

Description of available LON data with the name of variables		
CHILLER CONTROL	nvi (Writing)	nvo (Reading)
Loop inlet sensor fault (Multigroup Control)		nvoDefSondeEBouc
Loop outlet sensor fault (Multigroup Control)		nvoDefSondeSBouc
Drycooler Control link fault		nvoDefLiaiAeroCo
Outdoor temperature too high in cooling mode		nvoDefTExtHtFrd
Change of operating mode fault		nvoDefCgtModeFct
Winter protection		nvoSecuHiver
Hydraulic module sensor fault		nvoDefSondeAbEch
Condenser outlet sensor fault		nvoDefSondeSCond
Outdoor temperature too high in heating mode		nvoDefTExtHtChd
External fault		nvoDefExt
Emergency stop fault		nvoDefArretUrg
Control sensor fault		novDefSondeRegul
Tightness check fault		nvoDefCtrlEtan
Maintenance fault		nvoDefMaint
Circuit 1 fault summary		nvoSyntDefC1
Compressor 1 fault		nvoDefComp1
Man. HP fault, circuit 1		nvoDefHPManuC1
Circuit 1 LP fault		nvoDefBPC1
Water frosting fault, circuit 1-2		nvoDefGelEauC1C2
Compressor 1 discharge fault		nvoDefRefComp1
Expansion valve fault, circuit 1		nvoDefDetendC1
Low superheat fault, circuit 1		nvoDefSurBasC1
High superheat fault, circuit 1		nvoDefSurHautC1
Circuit 1 desuperheat fault		novDefDesurC1
Circuit 1 lubrication fault		nvoDefLubrifC1
Compressor 1 discharge sensor fault		nvoDefSondeRefC1
Circuit 1 HP sensor fault		nvoDefCaptHPC1
Circuit 1 LP sensor fault		nvoDefCaptBPC1
Circuit 1 suction sensor fault		nvoDefSondeAspC1
Circuit 1 liquid sensor fault		nvoDefSondeLiqC1
ADD3 board link fault (circuits 1 and 2)		novDefADD3C1C2
Compressor 1 load shedding		nvoDelestComp1
Circuit 2 fault summary		nvoSyntDefC2
Compressor 2 fault		nvoDefComp2
Man. HP fault, circuit 2		nvoDefHPManuC2
Circuit 2 LP fault		nvoDefBPC2
Compressor 2 discharge fault		nvoDefRefComp2
Expansion valve fault, circuit 2		nvoDefDetendC2
Low superheat fault, circuit 2		nvoDefSurBasC2
High superheat fault, circuit 2		nvoDefSurHautC2
Circuit 2 desuperheat fault		novDefDesurC2

Description of available LON data with the name of variables		
CHILLER CONTROL	nvi (Writing)	nvo (Reading)
Circuit 2 lubrication fault		nvoDefLubrifC2
Compressor 2 discharge sensor fault		nvoDefSondeRefC2
Circuit 2 HP sensor fault		nvoDefCaptHPC2
Circuit 2 LP sensor fault		nvoDefCaptBPC2
Circuit 2 suction sensor fault		nvoDefSondeAspC2
Circuit 2 liquid sensor fault		nvoDefSondeLiqC2
Compressor 2 load shedding		nvoDelestComp2
Circuit 3 fault summary		nvoSyntDefC3
Compressor 3 fault		nvoDefComp3
Man. HP fault, circuit 3		nvoDefHPManuC3
Circuit 3 LP fault		nvoDefBPC3
Water frosting fault, circuit 3		nvoDefGelEauC3
Compressor 3 discharge fault		nvoDefRefComp3
Expansion valve fault, circuit 3		nvoDefDetendC3
Low superheat fault, circuit 3		nvoDefSurBasC3
High superheat fault, circuit 3		nvoDefSurHautC3
Circuit 3 desuperheat fault		novDefDesurC3
Circuit 3 lubrication fault		nvoDefLubrifC3
Compressor 3 discharge sensor fault		nvoDefSondeRefC3
Circuit 3 HP sensor fault		nvoDefCaptHPC3
Circuit 3 LP sensor fault		nvoDefCaptBPC3
Circuit 3 suction sensor fault		nvoDefSondeAspC3
Circuit 2 liquid sensor fault		nvoDefSondeLiqC3
ADD3 board connection fault circuit 3		novDefADD3C3
ADD1 board connection fault circuit 3		novDefADD1C3
Compressor 3 load shedding		nvoDelestComp3

Parameters list for DRYCOOLER CONTROL kit

Description of available LON data with the name of variables DRYCOOLER CONTROL	nvo (Reading)
Outdoor temperature	nvoTempExt
On/Off	nvoOnOff
Setpoint 1 /Setpoint 2 control	nvoRegulCons1ou2
Type of coil 1	nvoTypeBat1
Type of coil 2	nvoTypeBat2
Fan fault, stage 1, line 1	nvoDefVentE1L1
Fan fault, stage 2, line 1	nvoDefVentE1L2
Fan fault, stage 3, line 1	nvoDefVentE2L1
Fan fault, stage 4, line 1	nvoDefVentE2L2
Fan fault, stage 5, line 1	nvoDefVentE3L1
Fan fault, stage 6, line 1	nvoDefVentE3L2
Fan fault, stage 1, line 2	nvoDefVentE4L1
Fan fault, stage 2, line 2	nvoDefVentE4L2
Fan fault, stage 3, line 2	nvoDefVentE5L1
Fan fault, stage 4, line 2	nvoDefVentE5L2
Fan fault, stage 5, line 2	nvoDefVentE6L1
Fan fault, stage 6, line 2	nvoDefVentE6L2
Fan status, stage 1, line 1	nvoMarcheVenE1L1
Fan status, stage 2, line 1	nvoMarcheVenE1L1
Fan status, stage 3, line 1	nvoMarcheVenE2L1
Fan status, stage 4, line 1	nvoMarcheVenE2L1
Fan status, stage 5, line 1	nvoMarcheVenE3L1
Fan status, stage 6, line 1	nvoMarcheVenE3L1
Fan status, stage 1, line 2	nvoMarcheVenE4L1
Fan status, stage 2, line 2	nvoMarcheVenE4L1
Fan status, stage 3, line 2	nvoMarcheVenE5L1
Fan status, stage 4, line 2	nvoMarcheVenE5L1
Fan status, stage 5, line 2	nvoMarcheVenE6L1
Fan status, stage 6, line 2	nvoMarcheVenE6L1
On/Off control	nviAeroEnable
Setpoint 1 or 2 control mode	nviRegulCons1ou2

Fontion Aérocondenseur, to use the following variables for the regulation (regulation in pressure).

Description of available LON data with the name of variables DRYCOOLER CONTROL	nvo (Reading)
Pressure, coil 1, circuit 1	nvoPressBat1Cir1
Pressure, coil 1, circuit 2	nvoPressBat1Cir2
Pressure, coil 2, circuit 1	nvoPressBat2Cir1
Pressure, coil 2, circuit 2	nvoPressBat2Cir2
Setpoint 1 pressure 1 coil 1 circuit 1	nvoCons1P_Bat1C1

Description of available LON data with the name of variables	
DRYCOOLER CONTROL	nvo (Reading)
Setpoint 1 pressure 2 coil 1 circuit 2	nvoCons1P_Bat1C2
Setpoint 1 pressure 1 coil 1 circuit 1	nvoCons1P_Bat2C1
Setpoint 1 pressure 2 coil 1 circuit 2	nvoCons1P_Bat2C2
Setpoint 2 pressure 1 coil 1 circuit 1	nvoCons2P_Bat1C1
Setpoint 2 pressure 2 coil 1 circuit 2	nvoCons2P_Bat1C2
Setpoint 2 pressure 1 coil 1 circuit 1	nvoCons2P_Bat2C1
Setpoint 2 pressure 2 coil 1 circuit 2	nvoCons2P_Bat2C2
Adjustment, setpoint 1, pressure control, coil 1 circuit 1	nviCons1P_Bat1C1
Adjustment, setpoint 1, pressure control, coil 1 circuit 2	nviCons1P_Bat1C2
Adjustment, setpoint 1, pressure control, coil 2 circuit 1	nviCons1P_Bat2C1
Adjustment, setpoint 1, pressure control, coil 2 circuit 2	nviCons1P_Bat2C2
Adjustment, setpoint 2, pressure control, coil 1 circuit 1	nviCons2P_Bat1C1
Adjustment, setpoint 2, pressure control, coil 1 circuit 2	nviCons2P_Bat1C2
Adjustment, setpoint 2, pressure control, coil 2 circuit 1	nviCons2P_Bat2C1
Adjustment, setpoint 2, pressure control, coil 2 circuit 2	nviCons2P_Bat2C2

Non-contractual document. As part of its policy of continual product improvement, the manufacturer reserves the right to make any technical modifications it feels appropriate without prior notification.