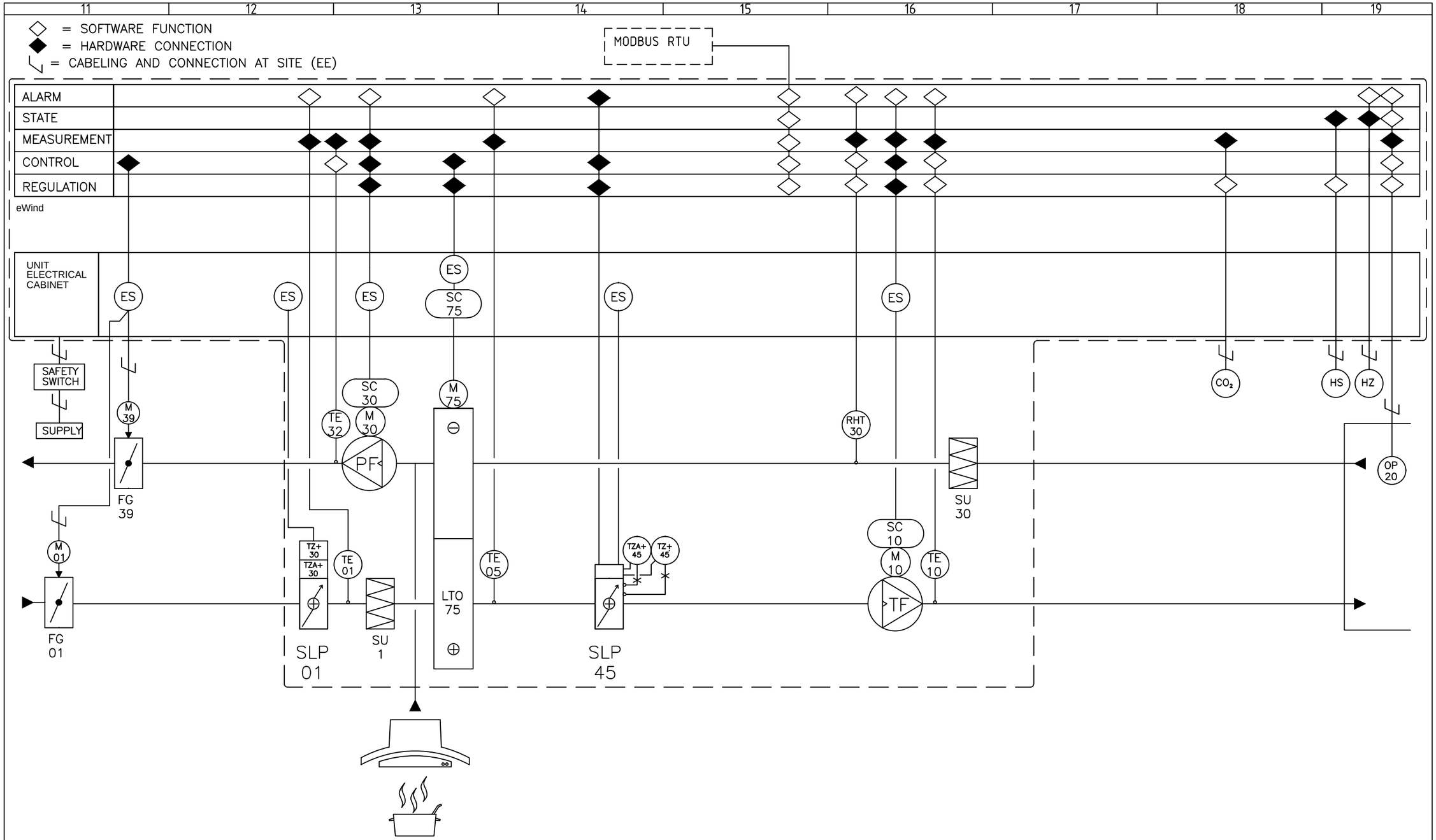

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				Name CONTROL CHART		Weight kg
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11	12	13	14	15	16	17	18	19
Air handling unit, component catalog								
Designation	Name			Equipment	Technical data		Note	
OP20	Control panel			1 pc standard delivery	eWind delivery, contains cabel			
TE01	Fresh air temperature			Standard	NTC−10			
TE05	Supply air, after heat recovery			Standard	NTC−10			
TE10	Supply air temperature			Standard	NTC−10			
RHT30	Extraxt air; temperature and humidity			Standard	Sender			
TE32	Exhaust air temperature			Standard	NTC−10			
SU1	Fresh air filter			Standard	Standard M5		Alternatively F7	
SU30	Extract air filter			Standard	Standard M5		Alternatively F7	
LTO75	Rotating heat exchanger			Standard				
M75+SC75	HRW motor + control			Standard	EC motor, max effect 15 W			
TF10+M10+SC10	Supply fan			Standard	EC motor			
PF30+M30+SC30	Exhaust fan			Standard	EC motor			
SLP45	Supply air reheater, electrical			E−models			Effect acc. to Unit size	
W45	Supply air reheater, water			W−models			Effect acc. to Unit size	
TL45+SV45	Valve actuator + 2−way control valve			W−models	Kvs−value acc. to Unit size			
TL50+SV50	Valve actuator+ 3−way control valve			CG−models	Kvs−value acc. to Unit size			
CG50	Supply air cooler			CG−models			Effect acc. to Unit size	
TE02	Preheated outdoor air			Models with preheating	NTC−10			
CO2	CO2−measurement			Optional equipment	200−2000ppm, 0−10Vdc			
HS	Extra time, switch			Optional equipment	Pushbutton			
HZ	Emergency stop				Normally open (NO) as standard			
FG01	Fresh air dampers+Damper motor			Optional equipment				
FG39	Exhaust air dampers+Damper motor			Optional equipment				

No	Change	Date	By	Appr

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JP					29.12.2016	0
			Name COMPONENT CATALOGUE			Weight kg
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General description of functions, eWind automation

The Air Handling unit in operation

The operation mode of the air handling unit can be changed from the control panel, by external control, or by fieldbus.

Fieldbus:

Modbus–RTU fieldbus is standard for all eWind air handling units. The unit can also be connected to KNX–fieldbus by an external adapter (extra equipment). Measurements can be read and settings changed by fieldbus.

Fan control:

The fans operate at constant speed. The supply and extract fans have individual speed settings for all operating modes. Fan speed settings are made from the control panel.

Temperature control:

The measurement for supply air temperature (TE10) is kept at its setpoint value by cooling (if applicable), heat recovery and by additional heating of the supply air after heat recovery.

Humidity boost:

All eWind air handling units are equipped with a built in relative humidity sensor in the extract air. Users can activate the humidity boost. When activated, the eWind automation increases the fan speeds if the humidity limit is exceeded.

CO2–boost (optional equipment):

Activation of the CO2 boost is possible, if an internal or external CO2 sensor is installed (optional equipment). By activating the CO2 boosting function, the eWind automation increases the fan speeds if the CO2 level exceeds its setpoint.

General safety features and deactivations

In units where the fans constitutes a danger, the unit shuts down if the service hatch is opened.

Dampers:
The dampers are controlled by a damper relay. As long as the air handling unit is operating the potential free relay connection is closed.

Models with electrical heater

Air handling units equipped with more than 2 kW supply air electrical heaters have pressure differential monitoring of the supply air fan. The electrical heater is disabled if pressure differential over the supply air fan is missing.

Models with water heater

Freeze protection
When the unit is restarted, the TL45 modulating valve is opened by the eWind automation according to the outside air temperature. When the unit is in stop mode, valve TL45 is regulated by the measurement for return water temperature TE45 so that constant return water temperature can be maintained. If the return water temperature under operation–mode or stop–mode decreases below the alarm limit for return water temperature an A–alarm is activated and the air handling unit shuts down, valve TL45 remains in a fully open position and the circulation pump remains on.

Summer function
All pump controlling outputs are equipped with pump summer control. This starts the pump occasionally to prevent seizure of the pump

A–alarm:

In case of an A alarm the air handling unit shuts down and an alarm is indicated in the operating panel display, and the alarm relay activates (alarm relay is not included in models with cooling or preheating). The unit can be restarted when the reason for the alarm is fixed and the alarm acknowledged.

AB–alarm:

In case of AB alarm the air handling unit goes into fail–safe mode, meaning that the supply and extract air fans are operating at minimum power. The alarm is automatically acknowledged and the air handling unit restarted to standard operation mode when the reason for the alarm is fixed.

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JP					29.12.2016	0
			Name FUNCTION DESCRIPTION			Weight kg
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