HUMIDITY SOLUTIONS
Independently better

SKR Residential Humidifier Specification

(ITALICIZED ITEMS REQUIRE SELECTION AND EDITING)

Supply (a) Neptronic immersion humidifier(s) series SKR, as manufactured by N.E.P. complete with:
- On/Off operation
- Incoloy 800/825 electric elements
- Permanent, cleanable stainless steel evaporation chamber
- Unidirectional, plug- in connectors with flexible wiring (BX (Greenfield) not acceptable)
- Single fill/drain connection
- Siphon system with no solenoid drain valve
- Internal controls to temper drain water to below 140°F (60°C) at the outlet of the humidifier
- Water level control system
- Microprocessor control
- High temperature safety element
- SAM steam distribution manifold (7/8" (22mm) diameter, 9" (229mm) long for SKR14 & SKR25) or (1 3/8" (35mm) diameter, 14" long for SKR30 & SKR40))
- Airflow proving switch
- Control connections shall be made using 2 furnished, pre-assembled cables with telephone jacks (50'for room humidistat and 10' for flow switch and/or optional high limit duct humidistat)
- 6' flexible steam hose
- Dry contact (3Amp/24Vac) to start the supply fan on call for humidity
- Remote alarm dry contact (1A/24Vac)
- CSA approval
- (Room humidity controller with setpoint adjustment) or (Duct humidity controller with setpoint adjustment) or (Duct humidity controller with room setpoint controller including one (1) extra 10' cable with telephone jacks)
- Capacity: (4.5 or 7.5 or 9 or 12) lbs/hr
- Power supply: (120V/1Ph/60 Hz 4.5 lbs/hr only) or (240V/1Ph/60Hz for all other models)
- Model: Neptronic SKR (14 Casa or 25 Villa or 30 Chateau or 40 Belvedere)

OPTIONS:
- Integrated airflow switch and high limit duct humidistat (Replaces airflow switch above)
- OTW temperature sensor to be installed on a window pane and wired to the Neptronic room or duct humidity controller to prevent fogging on windows

THE FOLLOWING OPTION IS TO BE USED WITH A BMS SYSTEM OR STANDARD ELECTROMECHANICAL CONTROLS ONLY. NO CABLES WITH TELEPHONE JACKS, NO ELECTRONIC AIR FLOW SWITCH AND NO HUMIDITY CONTROLLERS ARE INCLUDED. THE OTW AND INTEGRATED AIRFLOW SWITCH AND HIGH LIMIT DUCT HUMIDISTAT OPTIONS
ABOVE ARE NOT AVAILABLE. SPECIFY IF A HUMIDISTAT, A MECHANICAL AIR FLOW SWITCH AND HIGH LIMIT ARE TO BE FURNISHED BY NEPTRONIC OR BY OTHERS. REMOVE ITEMS ABOVE REFERRING TO PRE-ASSEMBLED CABLES WITH TELEPHONE JACKS.
- Two (2) terminal blocks to wire the humidistat and the safeties.

- The Humidifiers shall have the capacity to be linked with controller or sensors for fully automatic control and set-point adjustment at the
  humidifier or on the controller. With secondary high level humidity sensing, control shall be fully proportional.
- The Humidifier shall have microprocessor control to monitor operational status maintenance period and fault condition.
- The Humidifier shall have the capacity to work in a master/slave arrangement for any combination of system, with parallel humidifier operation for uniform use.
- The Humidifier shall be fitted as standard with a PCB to indicate fault status remotely via Volt-free contacts.
- The operational status shall be indicated by a backlit display on the front of the unit. Any fault message shall be indicated not only by a constant red light on the front of the unit but also confirmed by the LCD display.
- The Humidifier shall modulate its output over the entire working range 0-100%, proportional to the control signal. The operating range of the Humidifier shall be either the maximum output of the unit or adjustable via software to between 10 and 100% of that maximum. (Fine-tune software for very close control shall be available on Ultra Process Humidifier).
- Modulating output shall be indicated by the LCD display.
- Each humidifier shall require a single three phase power supply, other than single phase units, with no separate power supply required for control circuits.
- The 3-phase supply to each Humidifier shall be connected via an integrated contactor that will disable the 3 phase supply in a fault or safety circuit break condition. A built-in transformer will give the single phase and low voltage supplies required within the Humidifier.
- The 3-phase supply for the Humidifier shall be 400Vac (other 3-phase voltages shall be available upon request for Ultra Process Humidifiers).
- The steam shall be introduced into the ductwork via dedicated steam distribution pipes fitted with inserted injection nozzles for shorter evaporation. Steam pipes shall have rotational adjustment for optimum orientation within the duct.
- Where direct room humidification is required a room distribution unit shall be used.
- The room distribution unit shall have an operating noise level of 49dBA
- On initial start up the Humidifier shall self-test for 30 minutes to flush the systems before full operation.
- The Humidifier shall monitor the Humidifier run time and indicate the time remaining to service interval.
- The Humidifier shall be supplied complete with a WRAS approved non-return valve and inlet valve.
- The system is to be supplied by: Humidity Solutions Ltd, Humidity House, 3 The Axis Centre, Cleeve Road, Leatherhead, Surrey, KT22 7RD