

Universal Replacement Options for X13^{®*} and SelecTech[®]



The team at Nidec Motor Corporation has taken the next step in providing our customers with a flexible aftermarket solution for replacing X13[®] and SelecTech[®] constant torque ECM motors. We are pleased to announce the expansion of the ECM Rescue[®] Select[™] product line to include **“Universal Profiles”** as optional replacements for X13[®] and SelecTech[®] motors, when the preferred OEM part numbers are not available in our database. These **“Universal Profiles”** are **NOT** a direct OEM replacement. The speed at each tap may vary from the original OEM motor.

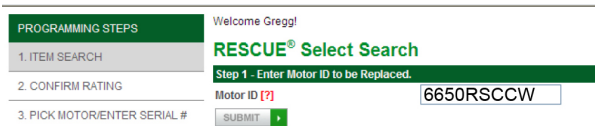
In addition, it is our commitment to review and update our database, to ensure we have captured the latest OEM X13[®] and SelecTech[®] part numbers and add any new ratings that are not available in our database.

Selecting a “Universal Profile”

You will need to obtain the following information from the original motor to make the proper selection: Voltage, Horsepower and Rotation.

Programming a “Universal Profile”

With the exception of choosing a Nidec Motor Corporation universal part number, the programming process is the same. The universal part number will be entered in the “Motor ID” field on the website as shown below



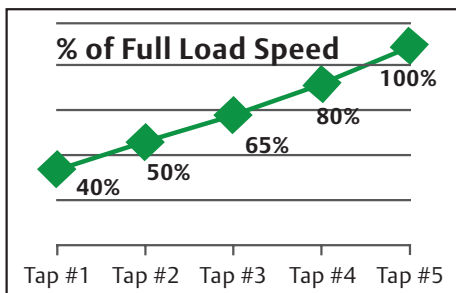
			Part Number	
Volt	HP	Amps	CCW Lead End	CW Lead End
115V	1	10.6	6650RSCCW	6650RSCW
	3/4	9.3	6640RSCCW	6640RSCW
	1/2	6.4	6630RSCCW	6630RSCW
	1/3	4.4	6630RSCCW3	6630RSCW3
208-230V	1	6.4-6.6	6651RSCCW	6651RSCW
	3/4	6.3-6.1	6641RSCCW	6641RSCW
	1/2	4.6-4.3	6631RSCCW	6631RSCW
	1/3	2.4-2.3	6631RSCCW3	6631RSCW3

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Adjusting speed taps during installation

- Each motor has 5 taps programmed to a specific speed
 - The speed increases from low to high moving across taps 1 through 5. Each tap increases speed by approximately 10% to 20%.



Speed Profile of Universal Motor
(Note: Some OEMs set the speed values in reverse order, High to Low, 1 thru 5)

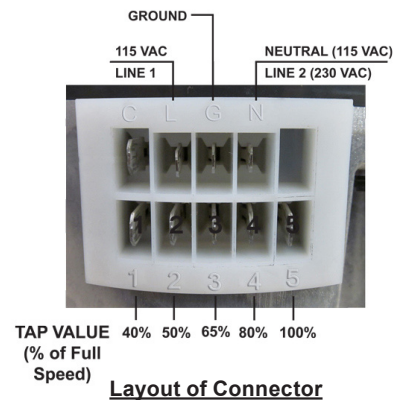


Figure 1: Competitor's Connector

Figure 1 shows an example of a motor connected in 3 tap system. Taps 1, 2 and 3 are programmed to 48%, 62% and 78% of the full load speed, respectively, and taps 4 and 5 are unprogrammed.

Notice: During installation, the speed tap values of the original motor will not be known. For the purpose of demonstrating how to install a Rescue[®] Select[™] motor, we have provided this information for ease of clarity.

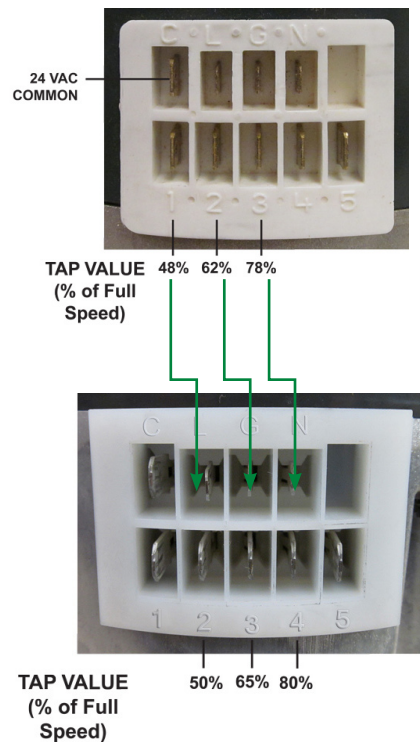


Figure 2: Rescue Select Connector

Figure 2 shows how the speed taps on a Rescue[®] Select[™] universal replacement motor should be selected to meet the original OEM motor specification. To match the proper airflow, taps 2, 3 and 4 are selected. This is determined by verifying airflow meets OEM equipment specification in all modes of operation.

Notice:

Verify airflow meets OEM equipment specification in all modes of operation. Temperature rise is a calculated difference between the temperatures in the supply air inlet and outlet of the HVAC system. The temperature reading should be taken inside the air ducts as close to the HVAC system as possible. Refer to the furnace/air handler manufacturer's manual for detailed temperature rise and specification

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