

## ABBREVIATED LIST OF FUNCTIONS

**Additional Features can be added to various DC Fan models to enhance product performance and efficiency, including the following:**

#	Abr.	Function Name	Function Description	Wire Color
1x	NAS	No Auto Restart Function	The fan will not reduce its current to zero under locked rotor conditions.	No external wire
1a	IR	Inrush Protection Soft Start	At start up the current is applied gradually (soft start).	No external wire
1b	AS	Auto Restart	The current is reduced to Zero when the fan is blocked and the fan is attempting to restart every few seconds.	No external wire
1c	MS	Special customer Specs	Modified Specifications to meet customer's request.	No external wire
2a	FG	Frequency of Rotation Output Signal	An output signal is provided in order to monitor the fan speed.	Yellow
2b	RD	Rotation Detection Output Signal	LOW Output signal indicates: fan is rotating	Gray
2c	RDb	Inverse of RD Output Signal	HIGH Output signal indicates: fan is rotating.	Violet
2d	LD	Fan Life Detection	LOW Output signal indicates: RPM is ~70% of rated (indicates aging fan of many connected in parallel).	Brown
2e	LDb	Fan Life Detection	This function is the complement of the LD function shown in our catalogue applied in one fan.	Brown
2f	FGI	FG+Rotation Detection Output Signal	This function is an FG tachometer function which gives a LOW signal when the fan is stopped.	Yellow
2g	FGh	FG+Rotation Detection Output Signal	This function is an FG tachometer function which gives a HIGH signal when the fan is stopped.	Yellow
3a	VPWM	DC Voltage Signal Control	The fan speed is controlled by applying DC Voltage signal. Standard DC signal 0 to 5VDC.	White
3b	IPWM	DC Current Signal Control	The fan speed is controlled by applying DC current signal (e.g. 4 to 20mA or 20 to 50mA.)	White
3c	PPWM	Pulse Width Modulation Control	The fan speed is controlled by applying PWM signal with frequency from 30HZ to 30 KHz.	
4	OV	Over Voltage Protection	Fan is protected if the applied voltage is up to twice the rated operating voltage.	No external wire
5a.	TPWM	Automatic Temperature Control	The fan speed is controlled by temperature sensed by Thermistor (NTC).(standard NTC 100K@25C, B=4484)	Green
5b	RPWM	Variable Resistor Control	The fan speed is controlled by manually varying external resistor.(Mini VR=10K, Max VR=100K)	Orange + white
6	CL	Current Limit Protection	The current is limited at Startup mode (typically less than twice the rated current.)	No external wire
7	CS	Fixed Constant Speed	The fan speed is independent of the power supply above the rated voltage ( factory preset)	No external wire
7a	CS	Programmable Constant Speed	The desired maximum fan speed can be selected externally for values less than the rated.	Orange+ White