

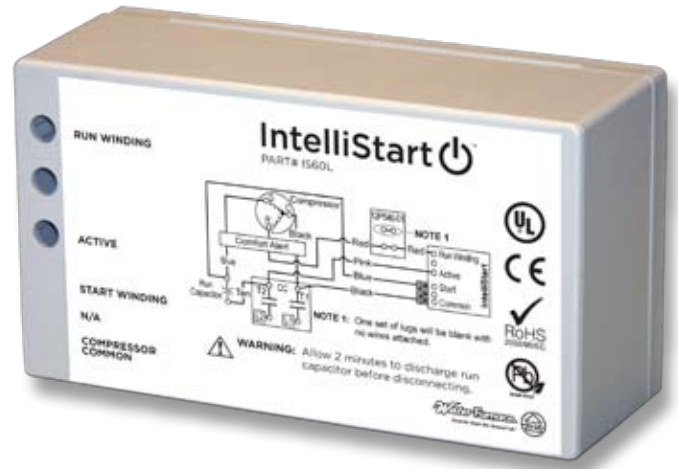
# IntelliStart™

## Soft Starter

WaterFurnace's IntelliStart™ is a single phase soft starter which reduces the normal start current (LRA) by 70%. This allows the heat pump to more easily go "off-grid." Using IntelliStart will also provide a substantial reduction in light flicker, reduce start-up noise, and improve the compressor's start behavior. IntelliStart is available in a field retrofit kit or as a factory option for all Envision™ and Synergy3D™ units (see reverse for additional information).

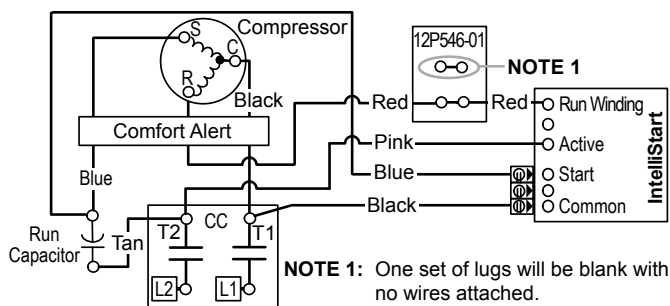
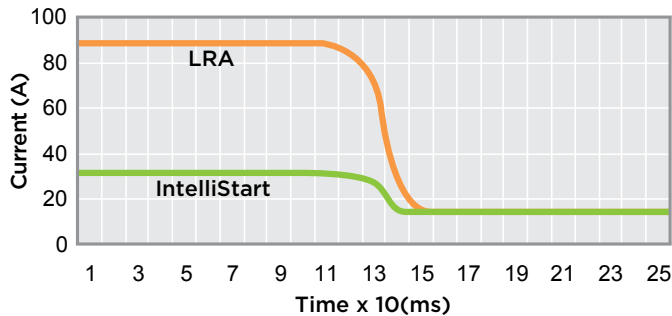
### Benefits

- Able to get compressors started under far worse conditions and with far lower starting currents than ever before. Conditions that other soft starters cannot come close to.
- Makes the heat pump supply voltage and line impedance tolerant.
- Reduces the supply line voltage drop experienced during starts.
- Protects the compressor from potentially damaging low voltage sags.
- Much lower start current, equating to further light flicker reduction —reductions approaching 10:1 can now be achieved (over normal LRA).
- Provides a quieter unit with significantly diminished start-up noise.
- Easy to install for retrofit.



### Electrical

**IntelliStart vs. LRA**



### Features

- Compressors able to be started with even lower currents than before —typically 30% of normal starting amps.
- Automatic adjustment of the compressor starting current to the available supply voltage —maintaining constant starting torque and current.
- Supply line impedance monitoring and compensation.
- Automatic compensation for residual backpressure in the system.
- Monitoring of supply voltage while compressor is running to prevent motor stalling, causing excessive currents, under low voltage conditions.
- A compact, fully self-contained unit aimed at the single-phase compressor market, and is suited to both split systems and room models.
- Light flicker reductions of up to 10:1 over LRA under the same conditions.
- Totally self-contained, compact, and lightweight (5.12 x 2.56 x 2.17 in. and weighing less than 1.1 lb.)
- Housed in a flame retardant ABS plastic enclosure.
- Enables easy installation either at the factory or in the field with full and detailed installation instructions supplied.
- UL, CE, and RoHS compliant
- Proven performance in the field

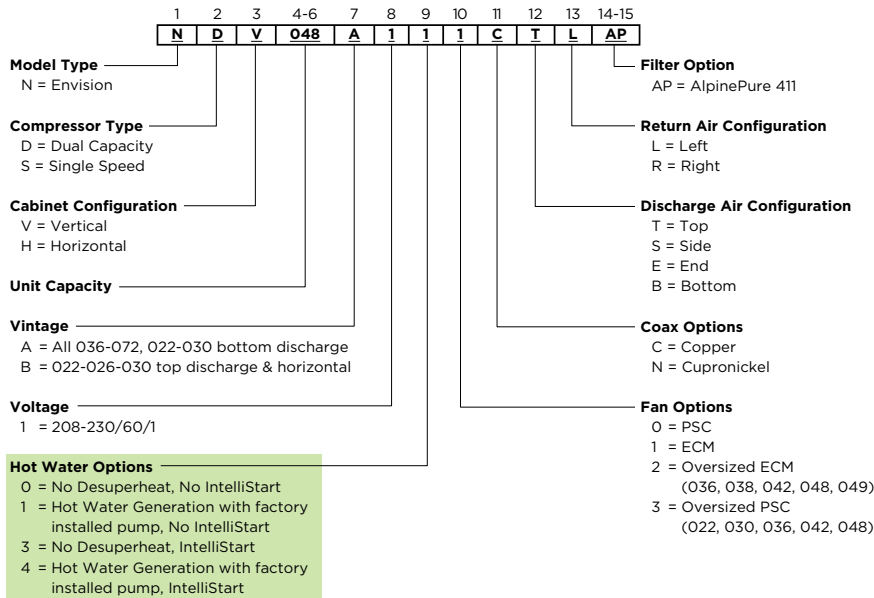
## IntelliStart Retrofit Kit

- Available for all Envision products 2 thru 6 Ton (single phase) and Synergy3D products
- Field installable kit (IS60RKS and IS60RKL)
- Kit includes:
  - IntelliStart module with mounting bracket
  - Wire bundle
  - Wire harness
  - Power terminal block
  - 4 Mounting screws
  - 7/8 in. Plastic snap bushing
  - 3 Wire ties

IntelliStart Field Kit	WaterFurnace Model		Copeland Scroll Model	
	NS	ND & SDV	Single Speed	Two Speed
IS60RKS	022	026	ZP16K5E-PFV	ZPS20K4E-PFV
	030	038	ZP21K5E-PFV	ZPS30K4E-PFV
	036	-	ZP25K5E-PFV	-
	042	-	ZP31K5E-PFV	-
IS60RKL	048	049	ZP38K5E-PFV	ZPS40K4E-PFV
	060	064	ZP51K5E-PFV	ZPS51K4E-PFV
	070	072	ZP57K3E-PFV	ZPS60K4E-PFV

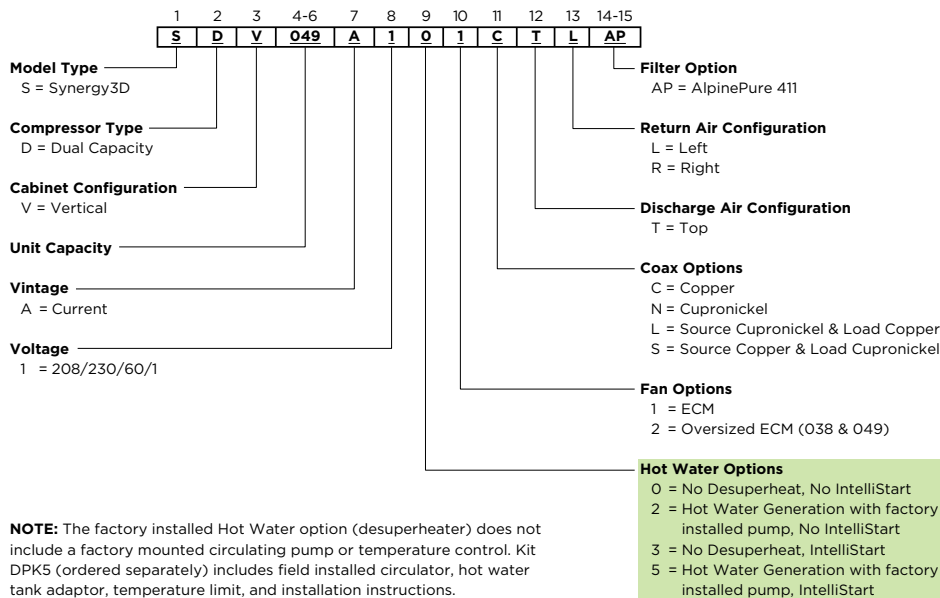
**NOTE:** IntelliStart cannot be used with units that have Bristol TS and Copeland CT Series 2 speed compressors.

## Envision Nomenclature



**NOTE:** All models include sound kits as standard equipment.

## Synergy3D Nomenclature



**NOTE:** The factory installed Hot Water option (desuperheater) does not include a factory mounted circulating pump or temperature control. Kit DPK5 (ordered separately) includes field installed circulator, hot water tank adaptor, temperature limit, and installation instructions.

