

i-Start Single Phase AC Motor Soft Starter



Applications

- Air conditioning compressors
- Refrigeration compressors
- Condensing units
- Air curtains
- Any Permanent Split Capacitor (PSC) motor up to 4.5kW (6HP)

Features

- **Reduces start-up current** to less than 45 Amps
- **Eliminates power disturbances**, light flicker & motor acoustic noise
- **Self adjusting** to motor current
- **In-built motor protection** including over/under voltage
- **Re-start delay** following power failure to prevent excessive restarts in areas where power quality is poor
- **Random start delay** where multiple motors used on same phase, to prevent all motors starting at the same time
- **LED status indicators** for self diagnostics
- **Universal wiring terminals**

Benefits

- **Less mechanical wear and tear** on motors
- **Extended Motor life**
- **Easy installation** with universal wiring terminals avoiding need for custom wiring harnesses

Specifications

Voltage:	200-265VAC
Frequency:	50-60Hz
Max Current:	32Amps
Shutdown voltage:	190VAC
Max. Duty cycle:	15 starts per hour
Dimensions (mm):	164(H) x 84(W) x 110(D)
Weight (grams):	915
Temp range:	-10 to +60C
EMC Compliance:	N15549
Standards:	AS60947, EN60947

Product Overview

i-Start is a small electronic AC motor soft-starter designed for any Permanent Split Capacitor (PSC) Motor of up to 4.5kW (6HP) output.

Its primary purpose is to reduce the current drawn by the motor at start-up to below the 45 Amps specified by regulatory authorities.

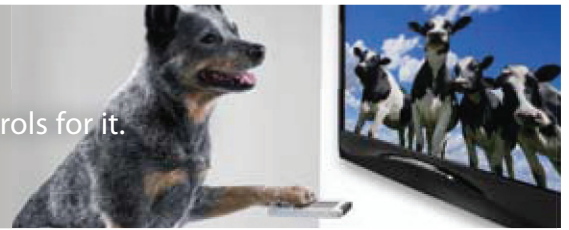
This results in lower power consumption at start-up, reduced acoustic noise and significantly less 'light flicker' when the motor starts.

The unit also features 'under-voltage' protection, which disables the attached motor in the event of mains power outages, power 'brown-outs', or hardware failure.

The overall result is superior motor protection, greater reliability and extended motor life, all at a very low price.

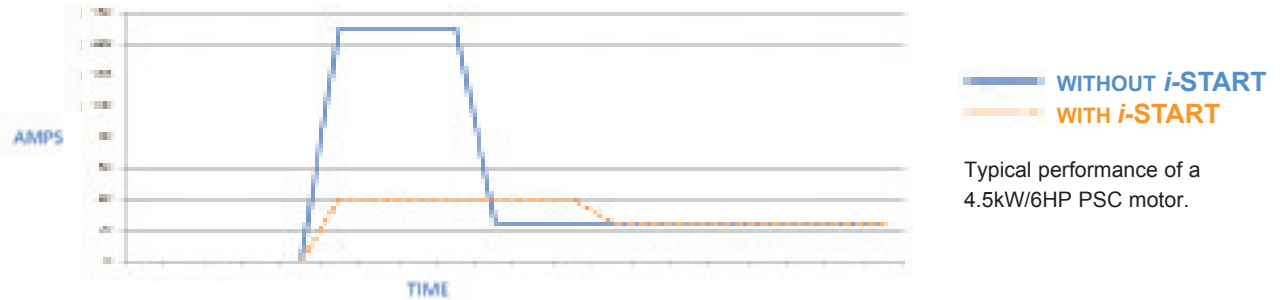
Ordering Information

Part number:	FPN011001
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i-Start Performance & Electrical Data

Typical Motor Performance Data

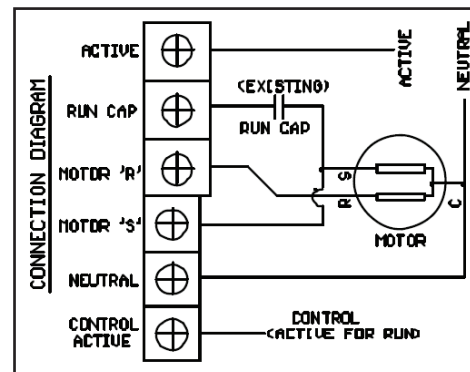


Wiring Diagram

Recommended wire sizes :

CONTROL ACTIVE	0.75mm ²
NEUTRAL	0.75mm ²
MOTOR 'S'	1.0 mm ²
RUN CAP	1.0 mm ²
MOTOR 'R'	4.0 mm ² *
ACTIVE	4.0 mm ² *

* typical maximum motor current - to suit 4.5kW (6HP) motor



LED Diagnostics

The *iStart* features a single front-mounted LED that provides comprehensive status reporting, as follows:

• Standby	1 flash/5 secs
• Normal Operation	constant on
• Start Delay	1 flash/sec (3–20 sec random delay)
• Power Failure	3 flashes/sec while awaiting re-start (re-start delay then as above)
• Fault	2 flashes/sec