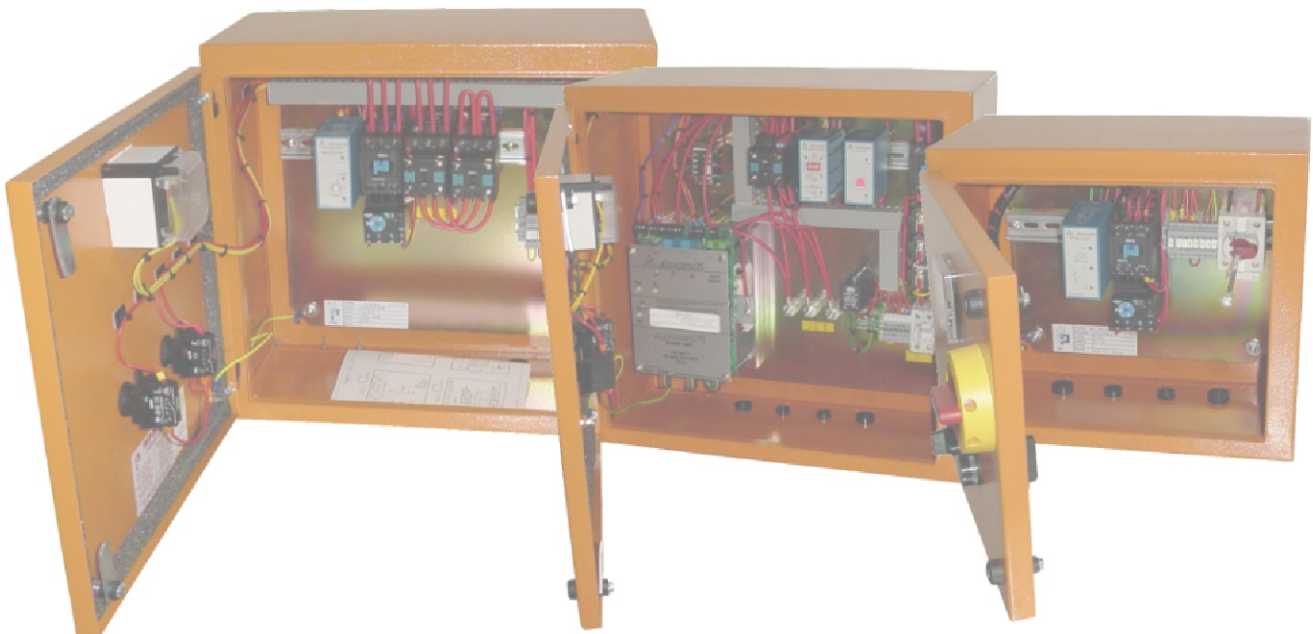


Starters



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All Prices Exclude VAT and are subject to change without prior notice.

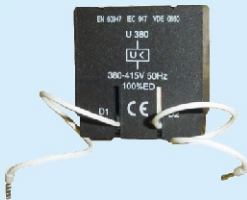
MANUAL MOTOR STARTERS



MS25



PS AUXILIARY



UNDERVOLTAGE RELEASE



**O-55
SURFACE
ENCLOSURE**



**CP-55
FLUSH
ENCLOSURE**

PARTNO	CURRENT RANGE AMPS	RATING KW 400V	SHORT-CIRCUIT BREAKING CAPACITY 380 - 415 V
MS25-0.16	0.10 - 0.16	0.02	100KA
MS25-0.25	0.16 - 0.25	0.06	100KA
MS25-0.4	0.25 - 0.40	0.09	100KA
MS25-0.63	0.40 - 0.63	0.12	100KA
MS25-1	0.63 - 1.00	0.25	100KA
MS25-1.6	1.00 - 1.60	0.55	100KA
MS25-2.5	1.60 - 2.50	1.10	100KA
MS25-4	2.50 - 4.00	1.50	100KA
MS25-6.3	4.00 - 6.30	2.50	100KA
MS25-10	6.30 - 10.00	4.00	4KA
MS25-16	10.00 - 16.00	7.50	4KA
MS25-20	16.00 - 20.00	9.00	3KA
MS25-25	20.00 - 25.00	12.50	3KA

PARTNO	DESCRIPTION
--------	-------------

AUXILIARY CONTACTS

PS-11	1NO + 1NC
PS-20	2NO

UNDERVOLTAGE RELEASE

UV-400V

ENCLOSURES - IP55

O-55	Surface mounting (complete with reducer)
CP-55	Flush mounting front plate
KR-M25-20	P.V.C. 25mm to 20mm reducer
O-55/BOOT	Push Button diaphragm for O-55

All Prices Exclude VAT and are subject to change without prior notice.

DOL STARTERS

PLASTIC ENCLOSURE

- Tough plastic housing with intergral buttons.
- Hose proof to IP55 as standard.
- Overloads with anti-single phase protection



STANDARD KMPL



ECONO DOL



KMPL with AMMETER

PARTNO	KW (3PH)	VOLTAGE
DOL Starters without Overloads		
KMPL9/P4KW	Up to 4 KW	380 V
KMPL12/P5KW	5.5 KW	380 V
KMPL16/P7KW	7.5 KW	380 V

PARTNO	Std Motors KW (3PH)	OVERLOAD AMPS
400V 3 Phase ECONO DOL Starters with Overloads (No Push Buttons - for remote START / STOP)		
ECP9-B/P4-0.37	0.37	0.6 - 1
ECP9-B/P4-0.55	0.55	0.96 - 1.6
ECP9-B/P4-0.75	0.75	1.5 - 2.5
ECP9-B/P4-1.1	1.1	2.3 - 3.2
ECP9-B/P4-1.5	1.5	2.9 - 4.0
ECP9-B/P4-2	2.2	3.8 - 6.3
ESCP-B/P4-4	4.0	6 - 10
ECP12-B/P4-5	5.5	9 - 12.5
ECP16-B/P4-7	7.5	11.3 - 16

230V 1 Phase DOL Starters with Overloads

PARTNO		Std Motors KW (1PH)	OVERLOAD AMPS
STANDARD	AMMETER		
KMPL9/P2S-0.37	KMPL9/P2A-0.37	0.25/0.37	3.4 - 4.8
KMPL9/P2S-0.55	KMPL9/P2A-0.55	0.55	4.5 - 6.3
KMPL9/P2S-0.75	KMPL9/P2A-0.75	0.75	5.5 - 7.5
KMPL9/P2S-1.1	KMPL9/P2A-1.1	1.1	9 - 12.5
KMPL12/P2S-1.5	KMPL12/P2A-1.5	1.5	11.3 - 16
KMPL22/P2S-2	KMPL22/P2A-2	2.2	17.5 - 21.5
KMPL30/P2S-4	KMPL30/P2A-4	4.0	24.5 - 30

400V 3 Phase DOL Starters with Overloads

PARTNO		Std Motors KW (3PH)	Sub Motors KW (3PH)	OVERLOAD AMPS
STANDARD	AMMETER			
KMPL9/P4S-0.37	KMPL9/P4A-0.37	0.37	-	0.6 - 1
KMPL9/P4S-0.55	KMPL9/P4A-0.55	0.55	0.37	0.96 - 1.6
KMPL9/P4S-0.75	KMPL9/P4A-0.75	0.75	0.56/0.75	1.5 - 2.5
KMPL9/P4S-1.1	KMPL9/P4A-1.1	1.1	-	2.3 - 3.2
KMPL9/P4S-1.5	KMPL9/P4A-1.5	1.5	1.1	2.9 - 4
KMPL9/P4S-2	KMPL9/P4A-2	2.2	2.2	4.5 - 6.3
KMPL9/P4S-4	KMPL9/P4A-4	4	3.75	6 - 10
KMPL12/P4S-5	KMPL12/P4A-5	5.5	-	9 - 12.5
KMPL16/P4S-7	KMPL16/P4A-7	7.5	5.6	11.3 - 16
KMPL22/P4S-11	KMPL22/P4A-11	11.0	7.5	17.5 - 21.5
KMPL30/P4S-15	KMPL30/P4A-15	15.0	-	24.5 - 30

KW & Overloads above are approximate and to be used as a guide.
Suitable Overload to be selected according to Motor Amps

Click here for the PRICELIST

DOL STARTERS

METAL ENCLOSURE

DOL Starters fitted with Mains Terminals

STANDARD	PARTNO			Std Motors KW (3PH)	Sub Motors KW (3PH)	ENCL
	AMMETER	ISOLATOR	AMMETER ISOLATOR			
IDL/M1S	IDL/M1A	IDL/M1I	IDL/M1AI	0.37	-	Small
IDL/M2S	IDL/M2A	IDL/M2I	IDL/M2AI	0.55	0.37	Small
IDL/M3S	IDL/M3A	IDL/M3I	IDL/M3AI	0.75	0.56/0.75	Small
IDL/M4S	IDL/M4A	IDL/M4I	IDL/M4AI	1.1/1.5	-/1.1	Small
IDL/M5S	IDL/M5A	IDL/M5I	IDL/M5AI	2.2	2.2	Small
IDL/M6S	IDL/M6A	IDL/M6I	IDL/M6AI	4	3.75	Small
IDL/M7S	IDL/M7A	IDL/M7I	IDL/M7AI	5.5	-	Small
IDL/M8S	IDL/M8A	IDL/M8I	IDL/M8AI	7.5	5.6	Small
IDL/M9S	IDL/M9A	IDL/M9I	IDL/M9AI	11	7.5	Small
IDL/M10S	IDL/M10A	IDL/M10I	IDL/M10AI	15	11	Small
IDL/M11S	IDL/M11A	IDL/M11I	IDL/M11AI	18.5	15	Small
IDL/M12S	IDL/M12A	IDL/M12I	IDL/M12AI	22	18.5 / 22	Medium
IDL/M13S	IDL/M13A	IDL/M13I	IDL/M13AI	30	30	Medium
IDL/M14S	IDL/M14A	IDL/M14I	IDL/M14AI	37	37	Large
IDL/M15S	IDL/M15A	IDL/M15I	IDL/M15AI	45	45	Large



DIRECT ON-LINE - Open



DIRECT ON-LINE - Closed

DOL REVERSING STARTERS

- Complete with: Forward, Stop, Reverse pushbuttons
Overload protection

PVC ENCLOSURE

STANDARD	PARTNO ISOLATOR	Rating at 400 V KW	ENCL
IDLDR/P2S	IDLDR/P2I	0.55	ENL241613P
IDLDR/P3S	IDLDR/P3I	0.75	ENL241613P
IDLDR/P5S	IDLDR/P5I	1.1/1.5	ENL241613P
IDLDR/P5S	IDLDR/P5I	2.2	ENL241613P
IDLDR/P6S	IDLDR/P6I	4	ENL241613P
IDLDR/P7S	IDLDR/P7I	5.5	ENL241613P
IDLDR/P8S	IDLDR/P8I	7.5	ENL241613P
IDLDR/P9S	IDLDR/P9I	11	GW44218
IDLDR/P10S	IDLDR/P10I	15	GW44218

METAL ENCLOSURE

STANDARD	PARTNO ISOLATOR	Rating at 400 V KW	ENCL
IDLDR/M2S	IDLDR/M2I	0.55	Small
IDLDR/M3S	IDLDR/M3I	0.75	Small
IDLDR/M4S	IDLDR/M4I	1.1/1.5	Small
IDLDR/M5S	IDLDR/M5I	2.2	Small
IDLDR/M6S	IDLDR/M6I	4	Small
IDLDR/M7S	IDLDR/M7I	5.5	Small
IDLDR/M8S	IDLDR/M8I	7.5	Small
IDLDR/M9S	IDLDR/M9I	11	Small
IDLDR/M10S	IDLDR/M10I	15	Small
IDLDR/M11S	IDLDR/M11I	18.5	Medium
IDLDR/M12S	IDLDR/M12I	22	Medium
IDLDR/M13S	IDLDR/M13I	30	Medium
IDLDR/M14S	IDLDR/M14I	37	Medium

Refer to page: 2.10 for other Fitted Optional Extras.

All Prices Exclude VAT and are subject to change without prior notice.

AUTOMATIC STAR DELTA STARTERS

- Steel Enclosure complete with pushbuttons.
- Overloads with anti-single phase protection.
- Door interlocked isolators.
- Fitted with mains & control terminals.
- Larger units & specials available on request.

OPEN TYPE - No Enclosure/Mounted on DIN Rail



OPEN STAR DELTA STARTER



ENCLOSED STAR DELTA STARTER

PARTNO	Rating at 400 V	
	H.P.	KW
IKYD10	10	7.5
IKYD20	15	11
IKYD30	20	15
IKYD40	25	18.5
IKYD50	30	22
IKYD60	40	30
IKYD70	50	37
IKYD80	60	45
IKYD90	75	55

STANDARD & Standard with AMMETER

PARTNO		Rating at 400 V		ENCL
STANDARD	AMMETER	H.P.	KW	
IKYD1S	IKYD1A	10	7.5	Small
IKYD2S	IKYD2A	15	11	Small
IKYD3S	IKYD3A	20	15	Small
IKYD4S	IKYD4A	25	18.5	Medium
IKYD5S	IKYD5A	30	22	Medium
IKYD6S	IKYD6A	40	30	Large
IKYD7S	IKYD7A	50	37	Large
IKYD8S	IKYD8A	60	45	Large
IKYD9S	IKYD9A	75	55	Large
IKYD10S	IKYD10A	100	75	Large
IKYD11S	IKYD11A	125	90	Ex-Large
IKYD12S	IKYD12A	150	110	Ex-Large
IKYD13S	IKYD13A	180	132	Ex-Large
IKYD14S	IKYD14A	220	160	EPAUTO
IKYD15S	IKYD15A	270	200	EPAUTO
IKYD16S	IKYD16A	340	250	EPAUTO
IKYD17S	IKYD17A	430	315	EPAUTO

Standard with ISOLATOR & Standard with AMMETER+ISOLATOR

PARTNO		Rating at 400 V		ENCL
ISOLATOR	AMMETER ISOLATOR	H.P.	KW	
IKYD1I	IKYD1AI	10	7.5	Small
IKYD2I	IKYD2AI	15	11	Small
IKYD3I	IKYD3AI	20	15	Small
IKYD4I	IKYD4AI	25	18.5	Medium
IKYD5I	IKYD5AI	30	22	Medium
IKYD6I	IKYD6AI	40	30	Large
IKYD7I	IKYD7AI	50	37	Large
IKYD8I	IKYD8AI	60	45	Large
IKYD9I	IKYD9AI	75	55	Large
IKYD10I	IKYD10AI	100	75	Large
IKYD11I	IKYD11AI	125	90	Ex-Large
IKYD12I	IKYD12AI	150	110	EP700
IKYD13I	IKYD13AI	180	132	EP700
IKYD14I	IKYD14AI	220	160	EPAUTO
IKYD15I	IKYD15AI	270	200	EPAUTO
IKYD16I	IKYD16AI	340	250	EPAUTO
IKYD17I	IKYD17AI	430	315	EPAUTO

Refer to page: 2.10 for Fitted Optional Extras.

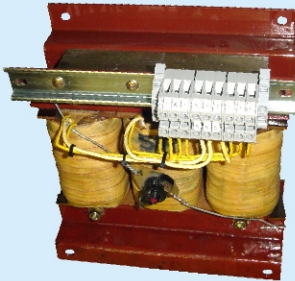
All Prices Exclude VAT and are subject to change without prior notice.

AUTO TRANSFORMER STARTERS

- Steel Enclosure complete with pushbuttons & ammeter
- Overloads with anti-single phase protection
- Surge arrestors fitted



AUTO TRANSFORMER STARTER



LOOSE AUTO TRANSFORMER

PARTNO		Rating at 400 V		ENCL
STANDARD	ISOLATOR	H.P.	KW	
ITX1S	ITX1I	10	7.5	Large
ITX2S	ITX2I	15	11	Large
ITX3S	ITX3I	20	15	Large
ITX4S	ITX4I	25	18.5	Ex-Large
ITX5S	ITX5I	30	22	Ex-Large
ITX6S	ITX6I	40	30	Ex-Large
ITX7S	ITX7I	50	37	EP700
ITX8S	ITX8I	60	45	EP700
ITX9S	ITX9I	75	55	EPAUTO

**KW & Overloads above are approximate and to be used as a guide.
Suitable Overload to be selected according to Motor Amps**

Refer to page: 2.10 for Fitted Optional Extras.

Loose Auto Transformers

- Fitted with: Terminals & Klixon

PARTNO	KW	Rating at 400 V	
		KW usage	
15AUTO	15	7.5 - 18.5	
22AUTO	22	22 - 30	
37AUTO	37	37	
45AUTO	45	45	

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AQUASOFT SERIES "2000" SOFT STARTERS Avanti

Aquasoft starters are fully electronic voltage controller units, which offer a smooth controlled run-up without any high transient currents. These transients occur when change-over contactors, such as star to delta, are switched.

- Used as alternative to Auto-transformer and Star Delta starters.
- Supplied in a metal enclosure.
- Units are fully wired with:

By-pass contactors	Internal Isolator
Pump Protection Relay PPR/3	Ammeter
Push Buttons	Surge Arrestors
Motor and Control terminals	



AQUASOFT SOFT STARTER
STACK & CARD

PARTNO	KW (400V)	ENCLOSURE
AQS11	11.0	Large
AQS15	15.0	Large
AQS18	18.5	Ex-Large
AQS22	22.0	Ex-Large
AQS30	30.0	Ex-Large
AQS37	37.0	Ex-Large
AQS45	45.0	Ex-Large
AQS55	55.0	Ex-Large
MCSS2	Spare AQUASOFT 2000 Series PCB card	

POWERSOFT SERIES SOFT STARTERS Avanti

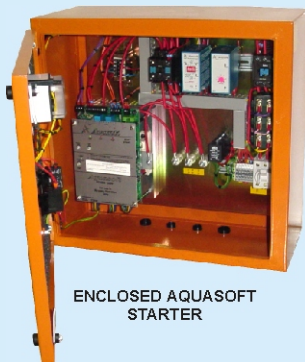
Designed for 3 wire connection systems, Powersoft offers full torque at start-up by using full voltage with reduced current on the initial start-up. The starting current is restricted to 3 to 4 times full load current.

The Powersoft has the extra feature of built-in Power Factor Correction (P.F.C.).

These starters are ideal for areas where grid power is weak as they boost the voltage at the starter's supply point and with the inherent P.F.C. the motor may draw 20% to 25% less than Full Load Current.

- Supplied in a metal enclosure.
- Units are fully wired with:

Start & Run contactors	Internal Isolator
Pump Protection Relay PPR/3	Ammeter
Reactive unit for start	Power Factor Correction
Start - Stop Push Buttons	Surge Arrestors
Motor and Control terminals	



ENCLOSED AQUASOFT
STARTER

PARTNO	KW (400V)	ENCLOSURE
PWS11	11.0	Large
PWS15	15.0	Large
PWS18	18.5	Ex-Large
PWS22	22.0	Ex-Large
PWS30	30.0	Ex-Large
PWS37	37.0	Ex-Large
PWS45	45.0	Ex-Large
PWS55	55.0	EP-700
PWS75	75.0	EP-6-8

Refer to page: 2.10 for other Fitted Optional Extras.

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CHASSIS MOUNT SOFT STARTERS

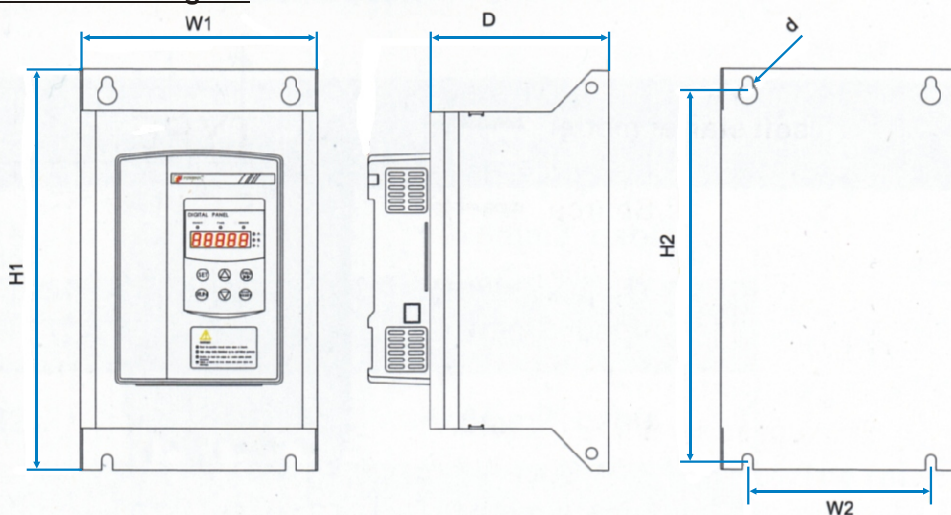
Powtran LIMITED STOCK

- Must be used with Bypass Contactor
- Bypass terminals provided.
- Complete with Motor Overload Protection
- **NOTE: These units are not wired and are not in an enclosure**



PARTNO	Rated Power (kW)	Rated Current (A)	Shape Dimensions (mm)			Installation Dimensions (mm)			Net weight (kg)
			H1	W1	D	H2	W2	d	
PR5200-055G3	55	110	288	146	159	270	115	Ø8	5
PR5200-115G3	115	230	350	206	210	330	160	Ø9	<20
PR5200-132G3	132	264	420	256	250	400	210	Ø9	<23
PR5200-160G3	160	320	420	256	250	400	210	Ø9	<23

Dimension Diagram



Refer to page: 2.10 for other Fitted Optional Extras.

Click here for the PRICELIST

SPECIAL DOL 3PH BOREHOLE PUMP-MOTOR STARTERS METAL ENCLOSURES

All starters are fitted with:

- Earth terminals, surge arrestors, internal isolators and **PUMP PROTECTION RELAYS**.
- Units up to 15 Kw, except ECONO starters, are fitted with motor terminals. On larger units, the motor cables are connected directly to the contactor.



BOREHOLE DOL STARTER



PPRI BOREHOLE DOL STARTER

PARTNO	CONTACTOR		ENCLOSURE			
	AMPS	KW	MODEL	W	H	D
ISKRA - Avanti PPR Series						
Econo Single Phase Starter						
PPRI-1.5P	12	1.5	PVC	160	240	130
PPRI-1.5PI	12	1.5	PVC	160	240	130
Econo Three Phase Starter						
PPRI-5P	12	5.5	PVC	160	240	130
PPRI-5PI	12	5.5	PVC	160	240	130
PPRI-5E	12	5.5	Metal	310	280	165

Standard Starter

PARTNO		CONTACTOR		ENCLOSURE
STANDARD	AMMETER	AMPS	KW	
PPRI-5S	PPRI-5A	12	5.5	Small
PPRI-7S	PPRI-7A	16	7.5	Small
PPRI-11S	PPRI-11A	23	11.0	Small
PPRI-15S	PPRI-15A	32	15.0	Small
PPRI-18S	PPRI-18A	43	18.0	Medium
PPRI-22S	PPRI-22A	43	22.0	Medium
PPRI-30S	PPRI-30A	63	30.0	Medium
PPRI-37S	PPRI-37A	95	37.0	Large
PPRI-45S	PPRI-45A	95	45.0	Large

NB: Check motor amps against above contactor amps.
This is the responsibility of the person making the selection.

Use of DOL starters above 7.5kw, requires authorization by the local electricity authorities.

Refer to page: 2.10 for other Fitted Optional Extras.

Click here for the PRICELIST

FITTED OPTIONAL EXTRAS

Add on extras fitted to all starters in metal enclosures, except DOL Reversing starters.



PARTNO	DESCRIPTION
FIT-HOA	Hand Off Auto Switch with Auto Terminals
◆ FIT-24VHOA	24 volt relay with Hand Off Auto Switch
FIT-GRPL	GREEN Pilot Light 400V LED
FIT-RDPL	RED Pilot Light 400V LED
◆ FIT-EQ72/5/3CT	Ammeter + 3 CT's + Selector Switch
FIT-EQ72-500V	Voltmeter (no fuses)
FIT-EQ72-500VSL	Voltmeter + Selector Switch (no fuses)
FIT-HM700	Hour Meter with 72mm x 72mm mounting frame
◆ FIT-ZED2	Lightning / Surge arrester
◆ FIT-SURGE525	Lightning / Surge arrester - 525v
◆ FIT-50VATX	Fit 50VA Transformer
FIT-BERM	ES Bermad Control System (incl. larger enclosure)
FIT-BB-MS	Fit only of Motor Scope or Blac Bocs (incl. larger enclosure)
EXLAENC	Extra for a larger Enclosure
◆ FIT-PPR/CT	PPR with CT
◆ FIT-3PHVWC	Fit 3 Phase Voltage Window Comparitor
FIT-EPBN	Pivot Supply Monitor (incl. larger enclosure)
◆ FIT-CM	Fit Current Monitor + C.T.
◆ FIT-LLC	Water Level Relay
◆ FIT-DCU	Distance Control Unit
◆ FIT-PFR	Phase Failure Relay
◆ FIT-PFR525	Phase Failure Relay 525v
◆ FIT-IT	Override Timer for no flow
◆ FIT-TPR	Thermistor Protection Unit
◆ FIT-24HT	24hr time clock with transformer
◆ FIT-7DT	7 day time clock with transformer
◆ FIT-KR	Klixon Relay with Pilot Light & Reset
◆	If more than 2 of these are selected in the DOL, Star Delta and Auto Trans-former Range add extra for larger Enclosure up to a Maximum of 37 KW.

Click here for the PRICELIST