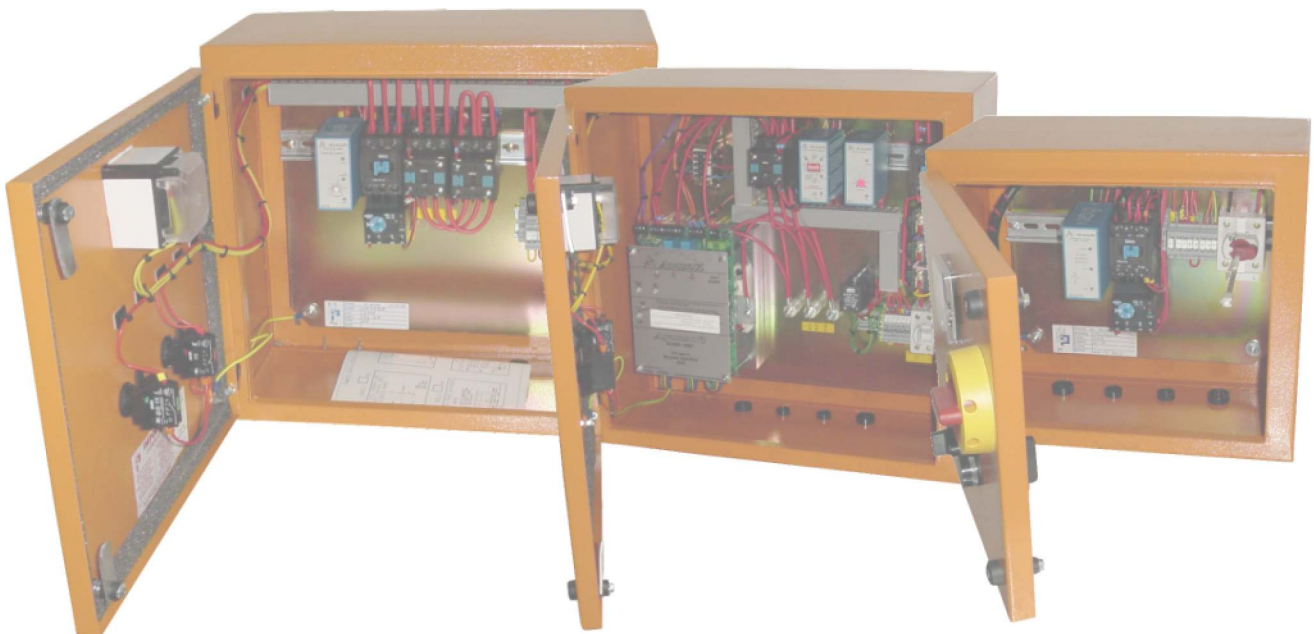


# Starters



<b>MANUAL MOTOR STARTERS</b>	<b>Page 2.2</b>
<b>DIRECT ON-LINE STARTERS - Plastic Enclosure</b>	<b>Page 2.3</b>
<b>DIRECT ON-LINE STARTERS - Metal Enclosure</b>	<b>Page 2.4</b>
<b>DIRECT ON-LINE REVERSING STARTERS</b>	<b>Page 2.4</b>
<b>STAR DELTA STARTERS</b>	<b>Page 2.5</b>
<b>AUTO TRANSFORMER STARTERS</b>	<b>Page 2.6</b>
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<b>BOREHOLE PUMP-MOTOR STARTERS</b>	<b>Page 2.9</b>
<b>FITTED OPTIONAL EXTRAS</b>	<b>Page 2.10</b>

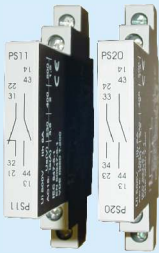


All Prices Exclude VAT and are subject to change without prior notice.

## 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	Price
<b>MS25-0.16</b>	0.10 - 0.16	0.02	100KA	636.00
<b>MS25-0.25</b>	0.16 - 0.25	0.06	100KA	636.00
<b>MS25-0.4</b>	0.25 - 0.40	0.09	100KA	636.00
<b>MS25-0.63</b>	0.40 - 0.63	0.12	100KA	636.00
<b>MS25-1</b>	0.63 - 1.00	0.25	100KA	666.00
<b>MS25-1.6</b>	1.00 - 1.60	0.55	100KA	722.00
<b>MS25-2.5</b>	1.60 - 2.50	1.10	100KA	722.00
<b>MS25-4</b>	2.50 - 4.00	1.50	100KA	722.00
<b>MS25-6.3</b>	4.00 - 6.30	2.50	100KA	722.00
<b>MS25-10</b>	6.30 - 10.00	4.00	4KA	840.00
<b>MS25-16</b>	10.00 - 16.00	7.50	4KA	840.00
<b>MS25-20</b>	16.00 - 20.00	9.00	3KA	880.00
<b>MS25-25</b>	20.00 - 25.00	12.50	3KA	1143.00

PARTNO DESCRIPTION

### AUXILIARY CONTACTS

<b>PS-11</b>	1NO + 1NC	144.00
<b>PS-20</b>	2NO	144.00

### UNDERVOLTAGE RELEASE

<b>UV-400V</b>		409.70
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### ENCLOSURES - IP55

<b>O-55</b>	Surface mounting (complete with reducer)	208.90
<b>CP-55</b>	Flush mounting front plate	195.90
<b>KR-M25-20</b>	P.V.C. 25mm to 20mm reducer	22.90
<b>O-55/BOOT</b>	Push Button diaphragm for O-55	30.70

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 IP.55 as standard.
- Overloads with anti-single phase protection



STANDARD KMPL



ECONO DOL



KMPL with AMMETER

PARTNO	KW (3PH)	VOLTAGE	Price
<b>DOL Starters without Overloads</b>			
KMPL9/P4KW	Up to 4 KW	380 V	911.00
KMPL12/P5KW	5.5 KW	380 V	995.00
KMPL16/P7KW	7.5 KW	380 V	1264.00

PARTNO	Std Motors KW (3PH)	OVERLOAD AMPS	Price
<b>400V 3 Phase ECONO DOL Starters with Overloads</b> (No Push Buttons - for remote START / STOP)			
ECP9-B/P4-0.37	0.37	0.6 - 1	1304.00
ECP9-B/P4-0.55	0.55	0.96 - 1.6	1304.00
ECP9-B/P4-0.75	0.75	1.5 - 2.5	1304.00
ECP9-B/P4-1.1	1.1	2.3 - 3.2	1304.00
ECP9-B/P4-1.5	1.5	2.9 - 4.0	1304.00
ECP9-B/P4-2	2.2	3.8 - 6.3	1304.00
ESCP-B/P4-4	4.0	6 - 10	1304.00
ECP12-B/P4-5	5.5	9 - 12.5	1384.00
ECP16-B/P4-7	7.5	11.3 - 16	1637.00

PARTNO	Std Motors KW (1PH)	OVERLOAD AMPS	Price STD CODE (S)	Price STD+AMM CODE (A)
<b>230V 1 Phase DOL Starters with Overloads</b>				
KMPL9/P2*-0.37	0.25/0.37	3.4 - 4.8	1488.00	2094.00
KMPL9/P2*-0.55	0.55	4.5 - 6.3	1488.00	2094.00
KMPL9/P2*-0.75	0.75	5.5 - 7.5	1488.00	2094.00
KMPL9/P2*-1.1	1.1	9 - 12.5	1488.00	2094.00
KMPL12/P2*-1.5	1.5	11.3 - 16	1572.00	2178.00
KMPL22/P2*-2	2.2	17.5 - 21.5	2326.00	3009.00
KMPL30/P2*-4	4.0	24.5 - 30	2547.00	3230.00

PARTNO	Std Motors KW (3PH)	Sub Motors KW (3PH)	OVERLOAD AMPS	Price STD CODE (S)	Price STD+AMM CODE (A)
<b>400V 3 Phase DOL Starters with Overloads</b>					
KMPL9/P4*-0.37	0.37	-	0.6 - 1	1488.00	2094.00
KMPL9/P4*-0.55	0.55	0.37	0.96 - 1.6	1488.00	2094.00
KMPL9/P4*-0.75	0.75	0.56/0.75	1.5 - 2.5	1488.00	2094.00
KMPL9/P4*-1.1	1.1	-	2.3 - 3.2	1488.00	2094.00
KMPL9/P4*-1.5	1.5	1.1	2.9 - 4	1488.00	2094.00
KMPL9/P4*-2	2.2	2.2	4.5 - 6.3	1488.00	2094.00
KMPL9/P4*-4	4	3.75	6 - 10	1488.00	2094.00
KMPL12/P4*-5	5.5	-	9 - 12.5	1572.00	2178.00
KMPL16/P4*-7	7.5	5.6	11.3 - 16	1841.00	2447.00
KMPL22/P4*-11	11.0	7.5	17.5 - 21.5	2326.00	3009.00
KMPL30/P4*-15	15.0	-	24.5 - 30	2547.00	3230.00

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

## DOL STARTERS

### METAL ENCLOSURE

PARTNO	Std Motors KW (3PH)	Sub Motors KW (3PH)	ENCL	Price STD CODE (S)	Price +AMM CODE (A)	Price +ISOL CODE (I)	Price +AMM+ISOL CODE (AI)
<b>DOL Starters fitted with Mains Terminals</b>							
IDL/M1-M6*	Up to 4	3.75	Small	3065.00	3570.00	3942.00	4512.00
IDL/M7*	5.5	-	Small	3137.00	3641.00	3959.00	4583.00
IDL/M8*	7.5	5.6	Small	3477.00	3941.00	4110.00	4726.00
IDL/M9*	11	7.5	Small	3799.00	4574.00	4818.00	5632.00
IDL/M10*	15	11	Small	3968.00	4764.00	4977.00	6022.00
IDL/M11*	18.5	15	Small	6121.00	6967.00	7090.00	8136.00
IDL/M12*	22	18.5 / 22	Medium	6167.00	6967.00	7141.00	8196.00
IDL/M13*	30	30	Medium	7082.00	8020.00	8144.00	9089.00
IDL/M14*	37	37	Large	10458.00	10906.00	12463.00	12912.00
IDL/M15*	45	45	Large	11092.00	11551.00	13418.00	13863.00



DIRECT ON-LINE - Open



DIRECT ON-LINE - Closed

## DOL REVERSING STARTERS

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

### PVC ENCLOSURE

PARTNO	Rating at 400 V KW	ENCL	Price STD CODE (S)	Price +ISOL CODE (I)
IDLR/P1-P6*	Up to 4	ENL241613P	3758.00	4495.00
IDLR/P7*	5.5	ENL241613P	3885.00	4616.00
IDLR/P8*	7.5	ENL241613P	4109.00	5135.00
IDLR/P9*	11	GW44218	4567.00	5347.00
IDLR/P10*	15	GW44218	5509.00	6602.00

### METAL ENCLOSURE

PARTNO	Rating at 400 V KW	ENCL	Price STD CODE (S)	Price +ISOL CODE (I)
IDLR/M1-M6*	Up to 4	Small	4450.00	5095.00
IDLR/M7*	5.5	Small	4573.00	5217.00
IDLR/M8*	7.5	Small	4909.00	5679.00
IDLR/M9*	11	Small	5254.00	6084.00
IDLR/M10*	15	Small	6284.00	7383.00
IDLR/M11*	18.5	Medium	9329.00	10406.00
IDLR/M12*	22	Medium	9943.00	11211.00
IDLR/M13*	30	Medium	11859.00	13368.00
IDLR/M14*	37	Medium	18269.00	20585.00

Refer to page: 2.10 for other Fitted Optional Extras.

## 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		Price OPEN CODE (O)
	H.P.	KW	
IKYD1*	10	7.5	4062.00
IKYD2*	15	11	4420.00
IKYD3*	20	15	5076.00
IKYD4*	25	18.5	5122.00
IKYD5*	30	22	5787.00
IKYD6*	40	30	8824.00
IKYD7*	50	37	10752.00
IKYD8*	60	45	11938.00
IKYD9*	75	55	12547.00

### STANDARD & Standard with AMMETER

PARTNO	Rating at 400 V		ENCL	Price STD CODE (S)	Price +AMM CODE (A)
	H.P.	KW			
IKYD1*	10	7.5	Small	5660.00	6148.00
IKYD2*	15	11	Small	6039.00	6567.00
IKYD3*	20	15	Small	6695.00	7199.00
IKYD4*	25	18.5	Medium	7083.00	7564.00
IKYD5*	30	22	Medium	7814.00	8584.00
IKYD6*	40	30	Large	11353.00	11801.00
IKYD7*	50	37	Large	13246.00	14190.00
IKYD8*	60	45	Large	13641.00	14578.00
IKYD9*	75	55	Large	15399.00	15906.00
IKYD10*	100	75	Large	21194.00	22162.00
IKYD11*	125	90	Ex-Large	30720.00	31239.00
IKYD12*	150	110	Ex-Large	33608.00	34067.00
IKYD13*	180	132	Ex-Large	36031.00	37090.00
IKYD14*	220	160	EPAUTO	42706.00	43207.00
IKYD15*	270	200	EPAUTO	54796.00	55340.00
IKYD16*	340	250	EPAUTO	65986.00	66625.00
IKYD17*	430	315	EPAUTO	77535.00	78193.00

### Standard with ISOLATOR & Standard with AMMETER+ISOLATOR

PARTNO	Rating at 400 V		ENCL	Price +ISOL CODE (I)	Price +AMM+ISOL CODE (AI)
	H.P.	KW			
IKYD1*	10	7.5	Small	6313.00	7049.00
IKYD2*	15	11	Small	6679.00	7489.00
IKYD3*	20	15	Small	7348.00	8171.00
IKYD4*	25	18.5	Medium	7971.00	8915.00
IKYD5*	30	22	Medium	8743.00	9712.00
IKYD6*	40	30	Large	12214.00	12660.00
IKYD7*	50	37	Large	15981.00	16750.00
IKYD8*	60	45	Large	16502.00	17500.00
IKYD9*	75	55	Large	18019.00	18527.00
IKYD10*	100	75	Large	23931.00	24854.00
IKYD11*	125	90	Ex-Large	33611.00	34339.00
IKYD12*	150	110	EP700	38460.00	38920.00
IKYD13*	180	132	EP700	43376.00	43894.00
IKYD14*	220	160	EPAUTO	48549.00	49050.00
IKYD15*	270	200	EPAUTO	60946.00	61494.00
IKYD16*	340	250	EPAUTO	76669.00	77310.00
IKYD17*	430	315	EPAUTO	86254.00	86880.00

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

PARTNO	Rating at 400 V		ENCL	Price	Price
	H.P.	KW		STD CODE (S)	+ISOL CODE (I)
ITX1*	10	7.5	Large	18695.00	19252.00
ITX2*	15	11	Large	19631.00	20256.00
ITX3*	20	15	Large	20433.00	21067.00
ITX4*	25	18.5	Ex-Large	23876.00	24569.00
ITX5*	30	22	Ex-Large	27307.00	27999.00
ITX6*	40	30	Ex-Large	29357.00	30291.00
ITX7*	50	37	EP700	43404.00	45305.00
ITX8*	60	45	EP700	46198.00	48672.00
ITX9*	75	55	EPAUTO	49470.00	51933.00

**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



LOOSE AUTO TRANSFORMER

PARTNO	KW	Rating at 400 V		Price
		KW	KW usage	
15AUTO	15	7.5 - 18.5		9789.00
22AUTO	22	22 - 30		12590.00
37AUTO	37	37		18627.00
45AUTO	45	45		20412.00

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## AQUASOFT SERIES "2000" SOFT STARTERS

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	Price
AQS11	11.0	Large	15723.00
AQS15	15.0	Large	16516.00
AQS18	18.5	Large	19885.00
AQS22	22.0	Large	20943.00
AQS30	30.0	Large	22482.00
AQS37	37.0	Ex-Large	30367.00
AQS45	45.0	Ex-Large	38584.00
AQS55	55.0	Ex-Large	42879.00
MCSS2	Spare AQUASOFT 2000 Series PCB card		2048.00

## POWERSOFT SERIES SOFT STARTERS

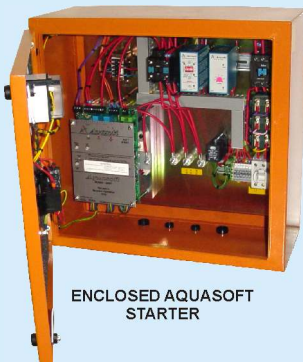
Designed for 3 wire connection systems, Powersoft offers full torque at start-up by using full voltage with reduced current on the initial start-up. The starting current is restricted to 3 to 4 times full load current.

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	Price
PWS11	11.0	Large	14357.00
PWS15	15.0	Large	15962.00
PWS18	18.5	Large	18902.00
PWS22	22.0	Large	20246.00
PWS30	30.0	Large	21620.00
PWS37	37.0	Ex-Large	29774.00
PWS45	45.0	Ex-Large	37879.00
PWS55	55.0	Ex-Large	44817.00
PWS75	75.0	Ex-Large	46538.00

Refer to page: 2.10 for other Fitted Optional Extras.

# CHASSIS MOUNT SOFT STARTERS

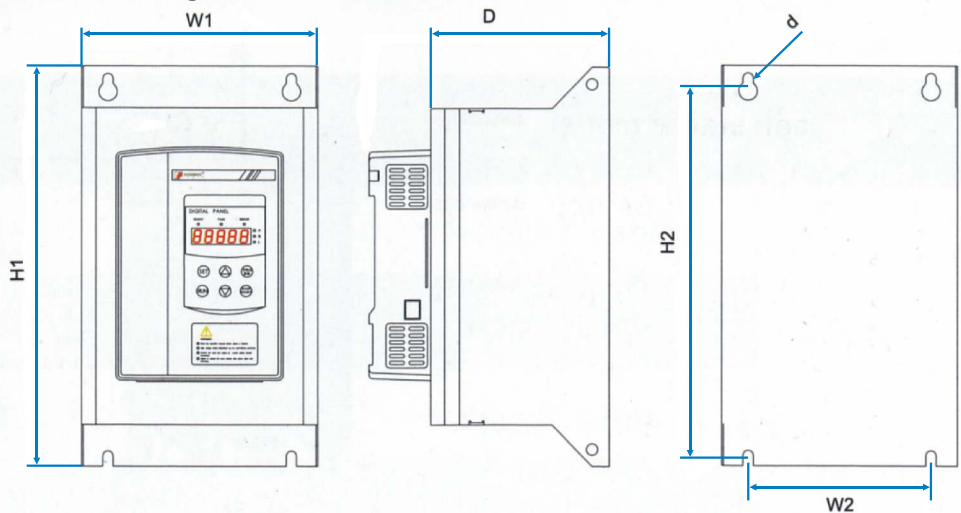
## Powtran LIMITED STOCK

- 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)	Price
			H1	W1	D	H2	W2	d		
PR5200-055G3	55	110	288	146	159	270	115	Ø8	5	15756.00
PR5200-115G3	115	230	350	206	210	330	160	Ø9	<20	33006.00
PR5200-132G3	132	264	420	256	250	400	210	Ø9	<23	37896.00
PR5200-160G3	160	320	420	256	250	400	210	Ø9	<23	39594.00

### Dimension Diagram



Refer to page: 2.10 for other Fitted Optional Extras.

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## 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		MODEL	ENCLOSURE			Price
	AMPS	KW		W	H	D	
<b>ISKRA - Avanti PPR Series</b>							
<b>Econo Single Phase Starter</b>							
PPRI-1.5P	12	1.5	PVC	160	240	130	3208.00
PPRI-1.5PI	12	1.5	PVC	160	240	130	3606.00
<b>Econo Three Phase Starter</b>							
PPRI-5P	12	5.5	PVC	160	240	130	3208.00
PPRI-5PI	12	5.5	PVC	160	240	130	3606.00
PPRI-5E	12	5.5	Metal	310	280	165	4517.00

PARTNO	CONTACTOR		ENCLOSURE	Price STD CODE (\$)	Price STD+AMM CODE (A)
	AMPS	KW			
<b>Standard Starter</b>					
PPRI-5*	12	5.5	Small	5235.00	5399.00
PPRI-7*	16	7.5	Small	5411.00	5576.00
PPRI-11*	23	11.0	Small	5589.00	6005.00
PPRI-15*	32	15.0	Small	5779.00	6195.00
PPRI-18*	43	18.0	Medium	7464.00	7880.00
PPRI-22*	43	22.0	Medium	7464.00	7880.00
PPRI-30*	63	30.0	Medium	8211.00	8627.00
PPRI-37*	95	37.0	Large	12872.00	13289.00
PPRI-45*	95	45.0	Large	13693.00	14110.00

**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.

## FITTED OPTIONAL EXTRAS

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



PARTNO	DESCRIPTION	Price
FIT-HOA	Hand Off Auto Switch with Auto Terminals	577.00
◆ FIT-24VHOA	24 volt relay with Hand Off Auto Switch	929.00
FIT-GRPL	GREEN Pilot Light 400V LED	279.00
FIT-RDPL	RED Pilot Light 400V LED	279.00
◆ FIT-EQ72/5/3CT	Ammeter + 3 CT's + Selector Switch	1998.00
FIT-EQ72-500V	Voltmeter (no fuses)	806.00
FIT-EQ72-500VSL	Voltmeter + Selector Switch (no fuses)	1457.00
FIT-HM700	Hour Meter with 72mm x 72mm mounting frame	863.00
◆ FIT-ZED2	Lightning / Surge arrester	885.00
◆ FIT-SURGE525	Lightning / Surge arrester - 525v	1350.00
◆ FIT-50VATX	Fit 50VA Transformer	953.00
FIT-BERM	ES Bermad Control System (incl. larger enclosure)	4732.00
FIT-BB-MS	Fit only of Motor Scope or Blac Bocs (incl. larger enclosure)	528.00
EXLAENC	Extra for a larger Enclosure	521.00
◆ FIT-PPR/CT	PPR with CT	1702.00
◆ FIT-3PHVWC	Fit 3 Phase Voltage Window Comparitor	1094.00
FIT-EPBN	Pivot Supply Monitor (incl. larger enclosure)	1441.00
◆ FIT-CM	Fit Current Monitor + C.T.	1114.00
◆ FIT-LLC	Water Level Relay	1031.00
◆ FIT-DCU	Distance Control Unit	1196.00
◆ FIT-PFR	Phase Failure Relay	931.00
◆ FIT-PFR525	Phase Failure Relay 525v	931.00
◆ FIT-IT	Override Timer for no flow	922.00
◆ FIT-TPR	Thermistor Protection Unit	1358.00
◆ FIT-24HT	24hr time clock with transformer	1951.00
◆ FIT-7DT	7 day time clock with transformer	2122.00
◆ FIT-KR	Klixon Relay with Pilot Light & Reset	1547.00

- ◆ 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.

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