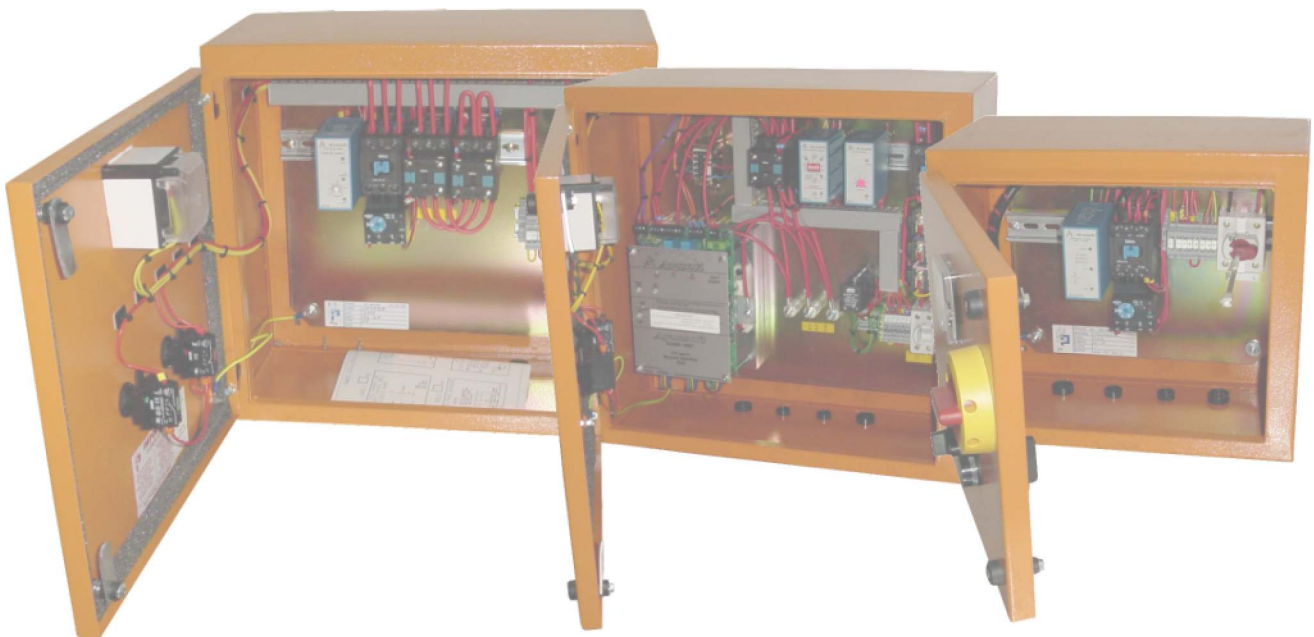


Starters



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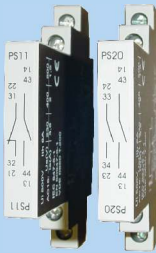


All Prices Exclude VAT and are subject to change without prior notice.

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	Price
MS25-0.16	0.10 - 0.16	0.02	100KA	558.80
MS25-0.25	0.16 - 0.25	0.06	100KA	558.80
MS25-0.4	0.25 - 0.40	0.09	100KA	558.80
MS25-0.63	0.40 - 0.63	0.12	100KA	558.80
MS25-1	0.63 - 1.00	0.25	100KA	585.40
MS25-1.6	1.00 - 1.60	0.55	100KA	634.90
MS25-2.5	1.60 - 2.50	1.10	100KA	634.90
MS25-4	2.50 - 4.00	1.50	100KA	634.90
MS25-6.3	4.00 - 6.30	2.50	100KA	634.90
MS25-10	6.30 - 10.00	4.00	4KA	738.20
MS25-16	10.00 - 16.00	7.50	4KA	738.20
MS25-20	16.00 - 20.00	9.00	3KA	773.30
MS25-25	20.00 - 25.00	12.50	3KA	1004.30

PARTNO DESCRIPTION

AUXILIARY CONTACTS

PS-11	1NO + 1NC	126.60
PS-20	2NO	126.60

UNDERVOLTAGE RELEASE

UV-400V	360.30
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ENCLOSURES - IP55

O-55	Surface mounting (complete with reducer)	182.50
CP-55	Flush mounting front plate	172.10
KR-M25-20	P.V.C. 25mm to 20mm reducer	21.00
O-55/BOOT	Push Button diaphragm for O-55	27.30

PARTNO UNITS POLES LENGTH

INSULATED TP BUSBAR CONNECTIONS

MSB-2X3	2	3	80	210.00
MSB-3X3	3	3	125	264.80
MSB-4X3	4	3	170	314.50
MSB-5X3	5	3	215	358.20
MSB-2X3-PS	2	3	90	314.70
MSB-3X3-PS	3	3	145	353.80
MSB-4X3-PS	4	3	200	386.70
MSB-5X3-PS	5	3	250	449.70
WSB-S-V-MS			Busbar feed-in terminal - 3P	257.10
BS-MS-0			Busbar protection cover	108.00

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	Price
DOL Starters without Overloads			
KMPL9/P4KW	Up to 4 KW	380 V	802.00
KMPL12/P5KW	5.5 KW	380 V	876.00
KMPL16/P7KW	7.5 KW	380 V	1112.00

PARTNO	Std Motors KW (3PH)	OVERLOAD AMPS	Price
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	1144.00
ECP9-B/P4-0.55	0.55	0.96 - 1.6	1144.00
ECP9-B/P4-0.75	0.75	1.5 - 2.5	1144.00
ECP9-B/P4-1.1	1.1	2.3 - 3.2	1144.00
ECP9-B/P4-1.5	1.5	2.9 - 4.0	1144.00
ECP9-B/P4-2	2.2	3.8 - 6.3	1144.00
ESCP-B/P4-4	4.0	6 - 10	1144.00
ECP12-B/P4-5	5.5	9 - 12.5	1207.00
ECP16-B/P4-7	7.5	11.3 - 16	1424.00

PARTNO	Std Motors KW (1PH)	OVERLOAD AMPS	Price STD CODE (S)	Price STD+AMM CODE (A)
230V 1 Phase DOL Starters with Overloads				
KMPL9/P2*-0.37	0.25/0.37	3.4 - 4.8	1297.00	1873.00
KMPL9/P2*-0.55	0.55	4.5 - 6.3	1297.00	1873.00
KMPL9/P2*-0.75	0.75	5.5 - 7.5	1297.00	1873.00
KMPL9/P2*-1.1	1.1	9 - 12.5	1297.00	1873.00
KMPL12/P2*-1.5	1.5	11.3 - 16	1370.00	1946.00
KMPL22/P2*-2	2.2	17.5 - 21.5	1995.00	2571.00
KMPL30/P2*-4	4.0	24.5 - 30	POA	POA

PARTNO	Std Motors KW (3PH)	Sub Motors KW (3PH)	OVERLOAD AMPS	Price STD CODE (S)	Price STD+AMM CODE (A)
400V 3 Phase DOL Starters with Overloads					
KMPL9/P4*-0.37	0.37	-	0.6 - 1	1297.00	1873.00
KMPL9/P4*-0.55	0.55	0.37	0.96 - 1.6	1297.00	1873.00
KMPL9/P4*-0.75	0.75	0.56/0.75	1.5 - 2.5	1297.00	1873.00
KMPL9/P4*-1.1	1.1	-	2.3 - 3.2	1297.00	1873.00
KMPL9/P4*-1.5	1.5	1.1	2.9 - 4	1297.00	1873.00
KMPL9/P4*-2	2.2	2.2	4.5 - 6.3	1297.00	1873.00
KMPL9/P4*-4	4	3.75	6 - 10	1297.00	1873.00
KMPL12/P4*-5	5.5	-	9 - 12.5	1370.00	1946.00
KMPL16/P4*-7	7.5	5.6	11.3 - 16	1606.00	2182.00
KMPL22/P4*-11	11.0	7.5	21 - 25	1995.00	2571.00
KMPL30/P4*-15	15.0	-	24.5 - 30	POA	POA

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)
DOL Starters fitted with Mains Terminals							
IDL/M1-M6*	Up to 4	3.75	EPS	2681.00	3111.00	3424.00	3908.00
IDL/M7*	5.5	-	EPS	2745.00	3174.00	3440.00	3970.00
IDL/M8*	7.5	5.6	EPS	3042.00	3436.00	3574.00	4097.00
IDL/M9*	11	7.5	EPS	3328.00	3987.00	4195.00	4884.00
IDL/M10*	15	11	EPS	3477.00	4358.00	4335.00	5237.00
IDL/M11*	18.5	15	EPS	5332.00	6226.00	6150.00	7050.00
IDL/M12*	22	18.5 / 22	EPMED	5372.00	6272.00	6193.00	7102.00
IDL/M13*	30	30	EPMED	6191.00	7001.00	7079.00	7892.00
IDL/M14*	37	37	EPL	9214.00	9597.00	10880.00	11264.00
IDL/M15*	45	45	EPL	9776.00	10168.00	11710.00	12089.00



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	3330.00	3951.00
IDLR/P7*	5.5	ENL241613P	3443.00	4058.00
IDLR/P8*	7.5	ENL241613P	3639.00	4516.00
IDLR/P9*	11	GW44218	4130.00	4793.00
IDLR/P10*	15	GW44218	4976.00	5913.00

METAL ENCLOSURE

PARTNO	Rating at 400 V KW	ENCL	Price STD CODE (S)	Price +ISOL CODE (I)
IDLR/M1-M6*	Up to 4	EPS	3930.00	4472.00
IDLR/M7*	5.5	EPS	4039.00	4580.00
IDLR/M8*	7.5	EPS	4340.00	4992.00
IDLR/M9*	11	EPS	4646.00	5350.00
IDLR/M10*	15	EPS	5556.00	6495.00
IDLR/M11*	18.5	EPMED	8234.00	9143.00
IDLR/M12*	22	EPMED	8786.00	9861.00
IDLR/M13*	30	EPMED	10506.00	11788.00
IDLR/M14*	37	EPMED	16298.00	18225.00

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	3700.00
IKYD2*	15	11	4018.00
IKYD3*	20	15	4603.00
IKYD4*	25	18.5	4649.00
IKYD5*	30	22	5242.00
IKYD6*	40	30	7853.00
IKYD7*	50	37	9573.00
IKYD8*	60	45	10624.00
IKYD9*	75	55	11182.00

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	EPS	5019.00	5431.00
IKYD2*	15	11	EPS	5355.00	5801.00
IKYD3*	20	15	EPS	5939.00	6611.00
IKYD4*	25	18.5	EPMED	6329.00	6742.00
IKYD5*	30	22	EPMED	6909.00	7652.00
IKYD6*	40	30	EPL	10015.00	10398.00
IKYD7*	50	37	EPL	11696.00	12516.00
IKYD8*	60	45	EPL	12047.00	12861.00
IKYD9*	75	55	EPL	13620.00	14053.00
IKYD10*	100	75	EPL	18773.00	19617.00
IKYD11*	125	90	EPXL	27315.00	27761.00
IKYD12*	150	110	EPXL	29927.00	30322.00
IKYD13*	180	132	EPXL	32086.00	33011.00
IKYD14*	220	160	EPAUTO	37570.00	38002.00
IKYD15*	270	200	EPAUTO	48957.00	49429.00
IKYD16*	340	250	EPAUTO	59259.00	59816.00
IKYD17*	430	315	EPAUTO	69394.00	69968.00

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	EPS	5569.00	6197.00
IKYD2*	15	11	EPS	5892.00	6586.00
IKYD3*	20	15	EPS	6488.00	7201.00
IKYD4*	25	18.5	EPMED	7079.00	7902.00
IKYD5*	30	22	EPMED	7768.00	8612.00
IKYD6*	40	30	EPL	10730.00	11112.00
IKYD7*	50	37	EPL	13996.00	14659.00
IKYD8*	60	45	EPL	14446.00	15308.00
IKYD9*	75	55	EPL	15797.00	16232.00
IKYD10*	100	75	EPL	21093.00	21894.00
IKYD11*	125	90	EPXL	30519.00	31154.00
IKYD12*	150	110	EP700	34325.00	34719.00
IKYD13*	180	132	EP700	38713.00	39156.00
IKYD14*	220	160	EPAUTO	44352.00	44784.00
IKYD15*	270	200	EPAUTO	56094.00	56568.00
IKYD16*	340	250	EPAUTO	71337.00	71895.00
IKYD17*	430	315	EPAUTO	80558.00	81106.00

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 STD CODE (S)	Price +ISOL CODE (I)
	H.P.	KW			
ITX1*	10	7.5	EPL	16477.00	16968.00
ITX2*	15	11	EPL	17358.00	17908.00
ITX3*	20	15	EPL	18121.00	18681.00
ITX4*	25	18.5	EPXL	21371.00	21985.00
ITX5*	30	22	EPXL	24350.00	24963.00
ITX6*	40	30	EPXL	26286.00	27115.00
ITX7*	50	37	EP700	38507.00	40194.00
ITX8*	60	45	EP700	41130.00	43328.00
ITX9*	75	55	EPAUTO	44285.00	46473.00

**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		8681.00
22AUTO	22	22 - 30		11163.00
37AUTO	37	37		16481.00
45AUTO	45	45		18080.00

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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	EP Large	13734.00
AQS15	15.0	EP Large	14426.00
AQS18	18.5	EP Large	17377.00
AQS22	22.0	EP Large	18314.00
AQS30	30.0	EP Large	19693.00
AQS37	37.0	EP Ex-large	27215.00
AQS45	45.0	EP Ex-large	34514.00
AQS55	55.0	EP Ex-large	38338.00
MCSS2	Spare AQUASOFT 2000 Series PCB card		1945.80

POWERSOFT SERIES SOFT STARTERS

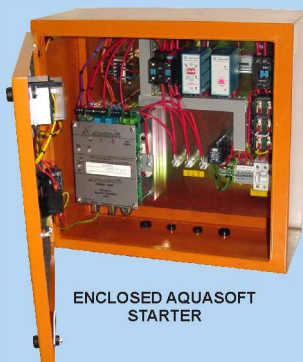
Designed for 3 wire connection systems, Powersoft offers full torque at start-up by using full voltage with reduced current on the initial start-up. The starting current is restricted to 3 to 4 times full load current.

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	EP Large	12817.00
PWS15	15.0	EP Large	13879.00
PWS18	18.5	EP Large	16905.00
PWS22	22.0	EP Large	18051.00
PWS30	30.0	EP Large	19287.00
PWS37	37.0	EP Ex-large	27258.00
PWS45	45.0	EP Ex-large	33645.00
PWS55	55.0	EP Ex-large	39495.00
PWS75	75.0	EP Ex-large	41394.00

Refer to page: 2.10 for other Fitted Optional Extras.

CHASSIS MOUNT SOFT STARTERS

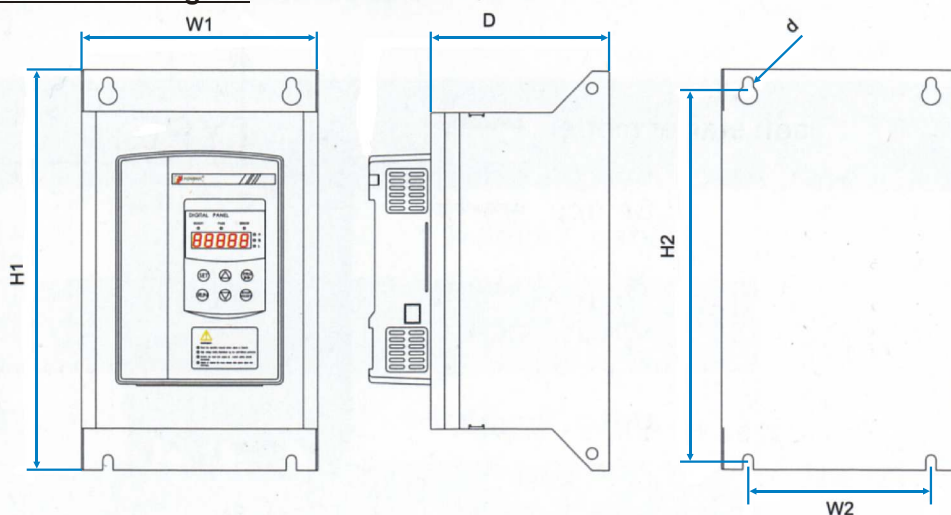
EM Heater & Powtran

- 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	15760.00
PR5200-075G3	75	150	350	206	210	330	160	Ø8	<20	22000.00
PR5200-115G3	115	230	350	206	210	330	160	Ø9	<20	33010.00
PR5200-132G3	132	264	420	256	250	400	210	Ø9	<23	37900.00
PR5200-160G3	160	320	420	256	250	400	210	Ø9	<23	39590.00

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	
ISKRA - Avanti PPR Series							
Econo Single Phase Starter							
PPRI-1.5P	12	1.5	PVC	160	240	130	2787.00
PPRI-1.5PI	12	1.5	PVC	160	240	130	3123.00
Econo Three Phase Starter							
PPRI-5P	12	5.5	PVC	160	240	130	2787.00
PPRI-5PI	12	5.5	PVC	160	240	130	3123.00
PPRI-5E	12	5.5	EPE	310	280	165	3850.00

PARTNO	CONTACTOR		ENCLOSURE	Price STD CODE (\$)	Price STD+AMM CODE (A)
	AMPS	KW			
Standard Starter					
PPRI-5*	12	5.5	EPS	4542.00	4769.00
PPRI-7*	16	7.5	EPS	4712.00	4968.00
PPRI-11*	23	11.0	EPS	4886.00	5364.00
PPRI-15*	32	15.0	EPS	5064.00	5595.00
PPRI-18*	43	18.0	EPM	6686.00	7373.00
PPRI-22*	43	22.0	EPM	6689.00	7380.00
PPRI-30*	63	30.0	EPM	7688.00	8518.00
PPRI-37*	95	37.0	EPL	11977.00	12639.00
PPRI-45*	95	45.0	EPL	12762.00	13444.00

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	516.00
◆ FIT-24VHOA	24 volt relay with Hand Off Auto Switch	816.00
FIT-GRPL	GREEN Pilot Light 400V LED	253.00
FIT-RDPL	RED Pilot Light 400V LED	253.00
◆ FIT-EQ72/5/3CT	Ammeter + 3 CT's + Selector Switch	1748.00
FIT-EQ72-500V	Voltmeter (no fuses)	599.00
FIT-EQ72-500VSL	Voltmeter + Selector Switch (no fuses)	1191.00
FIT-HM700	Hour Meter with 72mm x 72mm mounting frame	734.00
◆ FIT-ZED2	Lightning / Surge arrester	784.00
◆ FIT-SURGE525	Lightning / Surge arrester - 525v	1166.00
◆ FIT-50VATX	Fit 50VA Transformer	842.00
FIT-BERM	ES Bermad Control System (incl. larger enclosure)	4168.00
FIT-BB-MS	Fit only of Motor Scope or Blac Bocs (incl. larger enclosure)	331.00
EXLAENC	Extra for a larger Enclosure	331.00
◆ FIT-PPR/CT	PPR with CT	1496.00
◆ FIT-3PHVWC	Fit 3 Phase Voltage Window Comparitor	967.00
FIT-EPBN	Pivot Supply Monitor (incl. larger enclosure)	1273.00
◆ FIT-CM	Fit Current Monitor + C.T.	972.00
◆ FIT-LLC	Water Level Relay	908.00
◆ FIT-DCU	Distance Control Unit	1044.00
◆ FIT-PFR	Phase Failure Relay	819.00
◆ FIT-PFR525	Phase Failure Relay 525v	819.00
◆ FIT-IT	Override Timer for no flow	814.00
◆ FIT-TPR	Thermistor Protection Unit	1194.00
◆ FIT-24HT	24hr time clock with transformer	1699.00
◆ FIT-7DT	7 day time clock with transformer	1849.00
◆ FIT-KR	Klixon Relay with Pilot Light & Reset	1381.00

- ◆ 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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