

**EBARA**

TED-502EA

# Submersible Sewage Pumps

Model : DML (50Hz)

# DML

บริษัท ไฮ ลอป โซลิวชั่น จำกัด.





## Features

### Non-clog single channel impeller

Non-clog single channel impeller 3" spherical passage and prevents clogging.

### Robust construction

Large diameter and short overhang shaft, rugged cast iron construction, all fasteners of stainless steel and 4 pole motor drive.

### Double mechanical seal in oil chamber

An oil lubricated double mechanical seal with lower faces of hard silicon carbide provides strong and reliable shaft sealing.

### High efficiency, Energy saving

Hydraulic well designed single channel impeller gives high efficiency and saves energy.

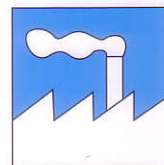
### Long life

Short overhanged shaft, big bearings and high grade mechanical seal give longer life.

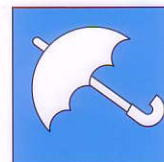
### In built motor protection

Quick acting dual response overloads provides protection against overload, lock or open phase for model 2.2 kW. Models 3.7 kW and above have miniature thermal protectors.

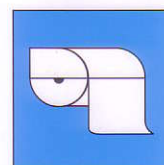
## Applications



Industrial drainage



Drainage

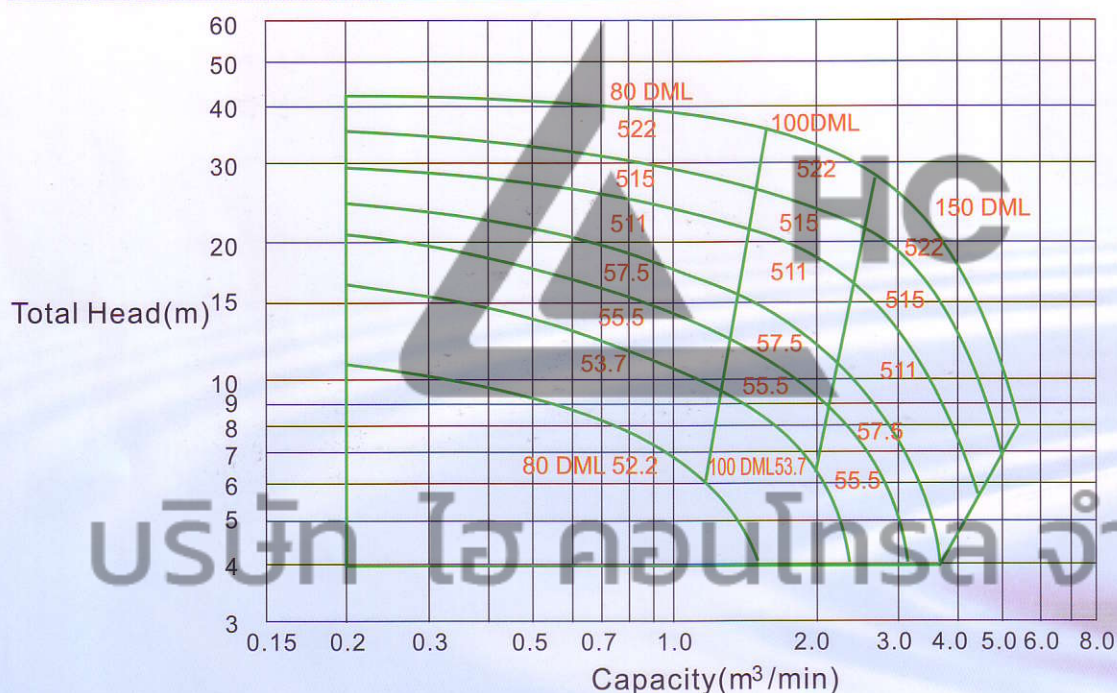


Sewage

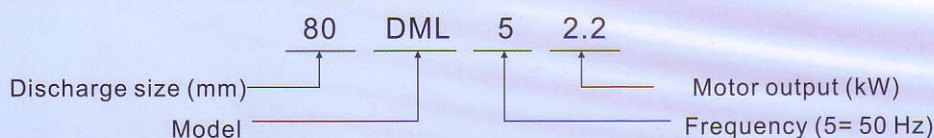


Irrigation

## Performance Chart



## Model Symbols



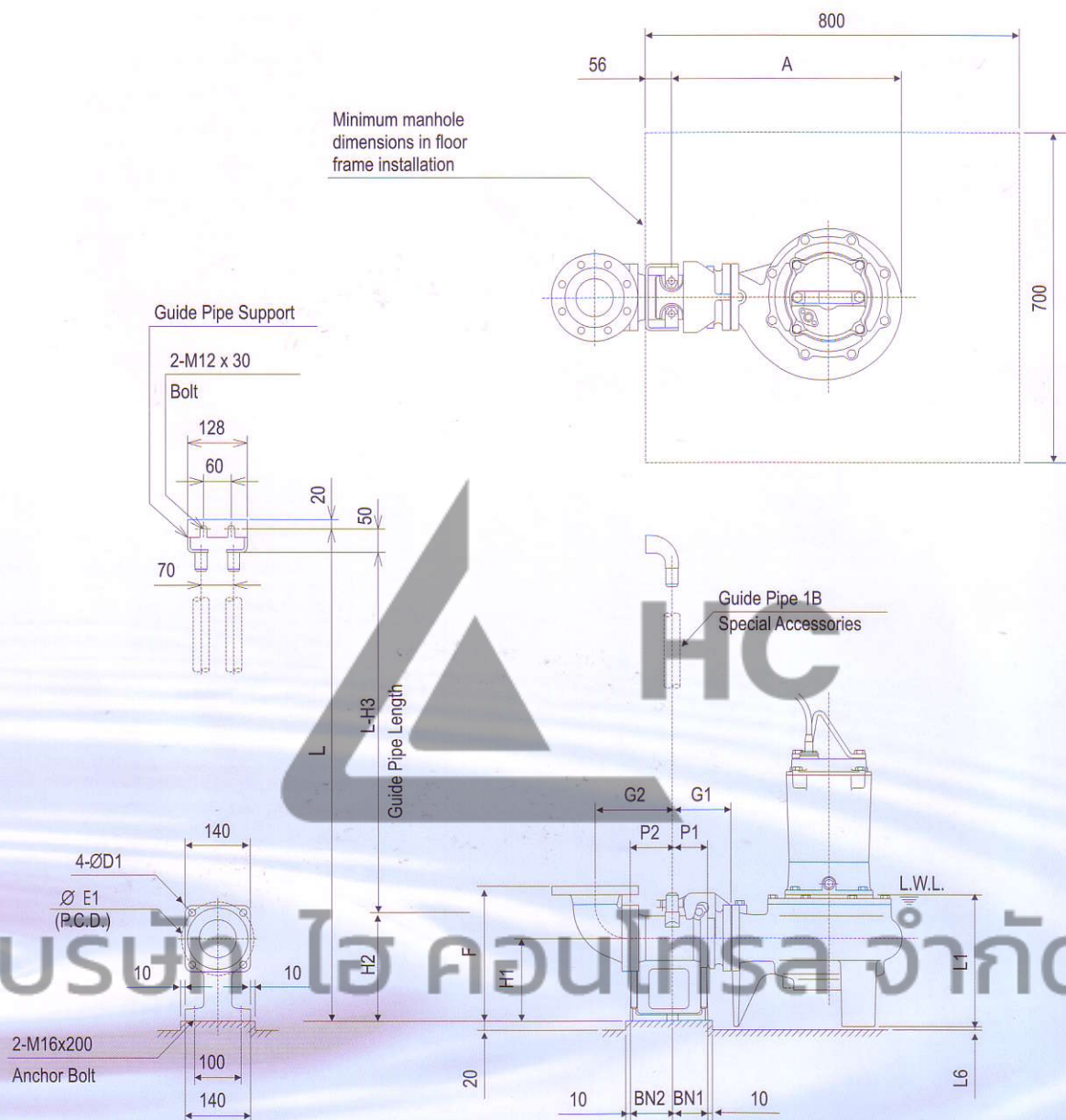
## Performance Data

MODEL	Ø 80		Ø 100		Ø 150	
	CAP.(l/min)	HEAD(m)	CAP.(l/min)	HEAD(m)	CAP.(l/min)	HEAD(m)
DML 52.2	200 -1600	11.2 -4.0				
DML 53.7	200 -1338	15.8 -9.1	1338 -2407	9.1 -4.0		
DML 55.5	300 -1400	19.3 -12.8	1400 -2194	12.8 -9.3	2194 -3379	9.3 -4.0
DML 57.5	300 -1449	22.6 -16.00	1449 -2270	16.0 -12.6	2270 -3987	12.6 -4.0
DML 511	300 -1512	28.5 -22.7	1512 -2368	22.7 -18.3	2368 -4472	18.3 -5.5
DML 515	300 -1557	34.0 -28.4	1557 -2440	28.4 -23.7	2440 -5102	23.7 -8.0
DML 522	300 -1595	39.5 -34.0	1595 -2489	34.0 -28.0	2489 -5566	28.0 -10.0

Remarks : 1 m = 3.28 ft      1 liter = 0.2642 gal (US)      1 liter = 0.220 gal (UK)



## Dimensions with LM type QDC- Applicable Models: 80 DML 52.2 53.7



Pump Model	A	P1	P2	G1	G2	F	H1	H2	H3	L1	L6	BN1	BN2	D1	E1	QDC Model	Weight
80 DML 52.2	492	75	90	125	165	285	175	230	280	279	7	75	90	15	155	LM80	17kg
80 DML 53.7	492	75	90	125	165	285	175	230	280	279	7	75	90	15	155	LM80	17kg

Units: mm unless otherwise specified

### Note:

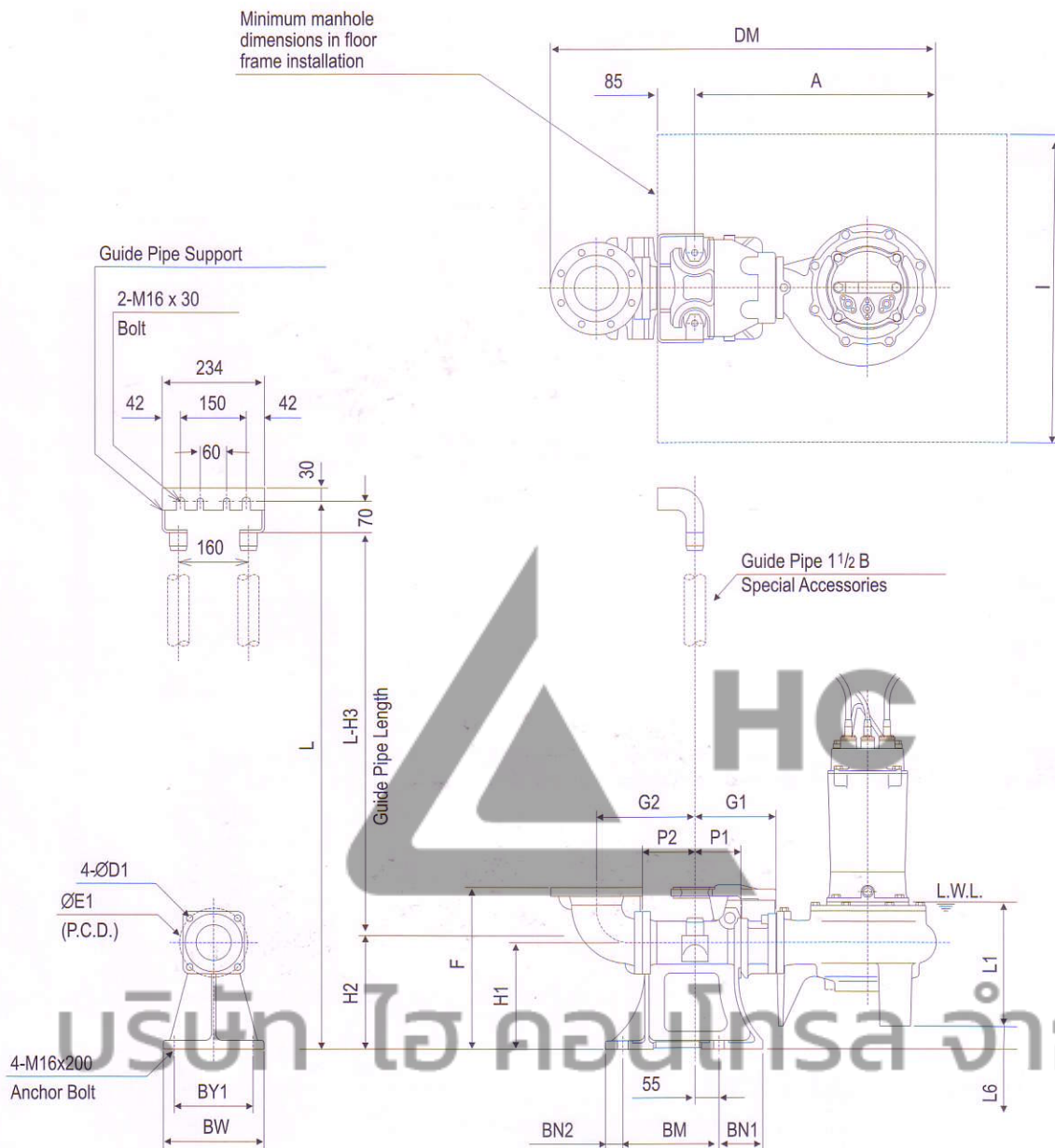
- For detail dimensions of the pumps, refer to separate dimension data sheet.
- The discharge bend and companion flange supplied with the pump are used with the QDC.
- The weight in dimension tables refers only to the weight of the QDC.
- Standard accessories supplied with QDC include:

- Connector body with foundation bolts
- Guide pipe support
- Adaptor flange

Guide pipe is not supplied.



## Dimensions with LL type QDC- Applicable Models: 80(100)(150) DML



Pump Model	A	P1	P2	G1	G2	F	H1	H2	H3	L1	L6	BN1	BN2	BM	BY1	BW	DM	I	D1	E1	QDC Model	Weight
80 DML 55.5	628	105	105	185	210	365	240	265	335	310	31	100	40	220	180	230	800	700	19	175	LL100	46kg
80 DML 57.5	628	105	105	185	210	365	240	265	335	310	31	100	40	220	180	230	800	700	19	175	LI100	46kg
80 DML 511	721	105	105	185	210	365	240	265	335	329	15	100	40	220	180	230	1000	700	19	175	LI100	46kg
80 DML 515	721	105	105	185	210	365	240	265	335	329	15	100	40	220	180	230	1000	700	19	175	LI100	46kg
80 DML 522	765	105	105	185	210	365	240	265	335	332	12	100	40	220	180	230	1000	700	19	175	LI100	46kg
100 DML 53.7	552	105	120	185	225	365	240	255	325	279	52	100	40	220	180	230	800	700	15	155	LI100	44kg
100 DML 55.5	628	105	105	185	210	365	240	265	335	310	31	100	40	220	180	230	800	700	19	175	LI100	46kg
100 DML 57.5	628	105	105	185	210	365	240	265	335	310	31	100	40	220	180	230	800	700	19	175	LI100	46kg
100 DML 511	721	105	105	185	210	365	240	265	335	329	15	100	40	220	180	230	1000	700	19	175	LI100	46kg
100 DML 515	721	105	105	185	210	365	240	265	335	329	15	100	40	220	180	230	1000	700	19	175	LI100	46kg
100 DML 522	765	105	105	185	210	365	240	265	335	332	12	100	40	220	180	230	1000	700	19	175	LI100	46kg
150 DML 55.5	628	105	105	185	235	400	240	265	335	310	31	100	40	220	180	230	800	700	19	175	LI100	46kg
150 DML 57.5	628	105	105	185	235	400	240	265	335	310	31	100	40	220	180	230	800	700	19	175	LI100	46kg
150 DML 511	721	105	105	185	235	400	240	265	335	329	15	100	40	220	180	230	1000	700	19	175	LI100	46kg
150 DML 515	721	105	105	185	235	400	240	265	335	329	15	100	40	220	180	230	1000	700	19	175	LI100	46kg
150 DML 522	765	105	105	185	235	400	240	265	335	332	12	100	40	220	180	230	1000	700	19	175	LI100	46kg

Units: mm unless otherwise specified

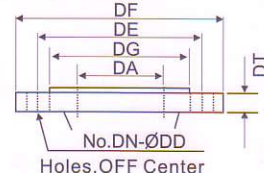
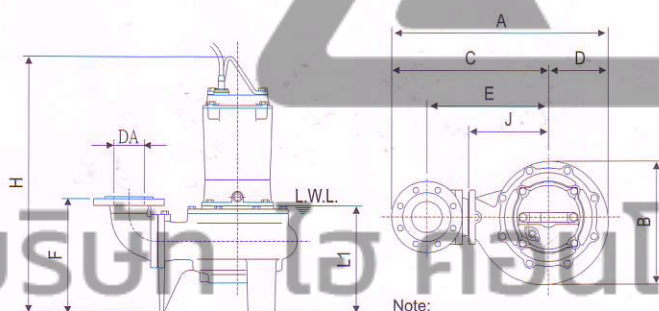


## Specification

		Standard	Optional
Liquid Handled	Type	Sewage, Wastewater	
	Maximum Temperature	40°C	
	Max. Solids	76mm	
Submergence	Maximum	8m	
	Minimum	Refer to low water level (L.W.L.) in dimensions.	
Construction	Impeller	Non-clog single channel	
	Mechanical Seal	Oil lubricated, double mechanical seal	
	Bearing	Prelubricated bearing	
Materials	Casing	Cast Iron	
	Impeller	Cast Iron	
	Suction Cover	Cast Iron	
	Shaft	403 Stainless Steel	
	Motor Frame	Cast Iron	
	Fasteners	304 Stainless Steel	
	Mechanical Seal	Motor side : Carbon/Ceramic Impeller side: Silicon carbide Lubricating Oil: Turbine Oil VG32 (SAE 10W/20W)	
Cable	Length	10m	
Accessories	Flange	Discharge elbow with screwed companion flange	
			Quick Discharge Connector (QDC)

## Dimensions - without QDC

Discharge Flange Dimensions  
(JIS 10kgf/cm<sup>2</sup>)



DA	DE	DF	DG	DT	DN	DD
80	150	185	126	18	8	15
100	175	210	151	20	8	15
150	240	280	212	22	8	19

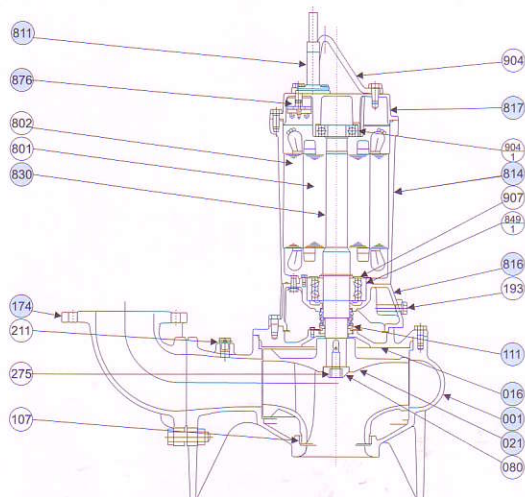
Note:  
1/ L.W.L.(Low Water Level) is limited to 10 minutes operation at low water level.  
2/ Is limited to 30 minutes operation with water level below top of motor.

Size	Model	Output (kw)	A	B	C	D	E	F	H	J	LI	Weight (kg)
80	80 DML 52.2	2.2	534	320	378	157	285	298	668	210	279	80
	80 DML 53.7	3.7	534	320	378	157	285	298	727	210	279	87
	80 DML 55.5	5.5	640	381	453	188	360	334	824	255	310	118
	80 DML 57.5	7.5	640	381	453	188	360	334	824	255	310	123
	80 DML 511	11	734	455	513	221	420	350	938	315	329	157
	80 DML 515	15	734	455	513	221	420	350	938	315	329	163
	80 DML 522	22	777	497	533	245	440	363	1021	335	342	223
100	100 DML 53.7	3.7	577	320	420	157	315	313	727	210	279	89
	100 DML 55.5	5.5	653	381	465	188	360	334	824	255	310	121
	100 DML 57.5	7.5	653	381	465	188	360	334	824	255	310	125
	100 DML 511	11	746	455	525	221	420	350	938	315	329	160
	100 DML 515	15	746	455	525	221	420	350	938	315	329	166
	100 DML 522	22	790	497	545	245	440	363	1021	335	342	226
150	150 DML 55.5	5.5	713	381	525	188	385	369	824	255	310	127
	150 DML 57.5	7.5	713	381	525	188	385	369	824	255	310	132
	150 DML 511	11	806	455	585	221	445	385	938	315	329	166
	150 DML 515	15	806	455	585	221	445	385	938	315	329	172
	150 DML 522	22	850	497	605	245	465	398	1021	335	342	232

Units: mm unless otherwise specified

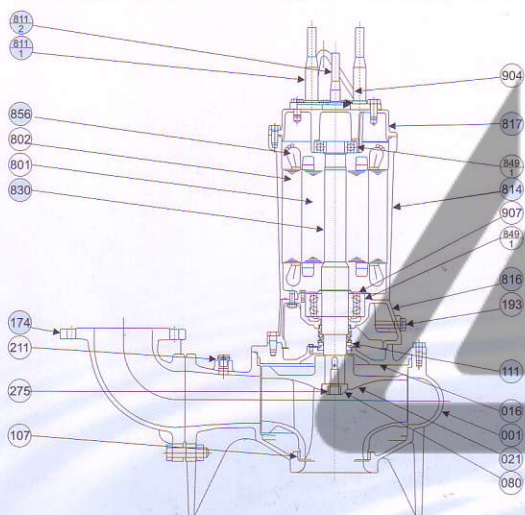


## Sectional View - 80DML52.2



876	Auto Cut		1
830	Shaft	SUS403 Stainless Steel	1
817	Opposite Side Bracket	FC200 Cast iron	1
816	Power Side Bracket	FC200 Cast iron	1
814	Motor Frame	FC200 Cast iron	1
811	Submersible Cable		1
174	Discharge Pipe	FC200 Cast iron	1
111	Mechanical Seal		1
021	Impeller	FC200 Cast iron	1
016	Mechanical Seal Cover	FC200 Cast iron	1
001	Pump Casing	FC200 Cast iron	1
Item Number	Description	Material	Quantity per unit

## Sectional View-Others



856	Thermal Protector		1
830	Shaft	SUS403 Stainless Steel	1
817	Opposite Side Bracket	FC200 Cast iron	1
816	Power Side Bracket	FC200 Cast iron	1
814	Motor Frame	FC200 Cast iron	1
811-2	Submersible Cable(Signal)		1
811-1	Submersible Cable(Power)		2
174	Discharge Pipe	FC200 Cast iron	1
111	Mechanical Seal		1
021	Impeller	FC200 Cast iron	1
016	Mechanical Seal Cover	FC200 Cast iron	1
001	Pump Casing	FC200 Cast iron	
Item Number	Description	Material	Quantity per unit

## Motor Spec.

	Standard	Optional
Type	Air filled dry submersible, IP68, Class F insulation	
Normal Speed	4 pole 1500 rpm	
Applicable Voltages	380/400/415 volts 3 phase 50 Hz	
Starting	DOL (2.2 kW) Star-Delta (3.7 to 22 kW)	
Protection	Inbuilt overload protection (2.2 kW) Miniature thermal protector (3.7 to 22 kW)	

## Painting

Surface preparation	Sa2 or St3
Primer coating	Zinc chromate primer Colour : Rusty Thickness: 20 ~ 25 micra
Over coating	KR MARINE paint primer Colour : Black Thickness: 30 ~ 40 micra

## Accessories

Nameplate for ground installation: 1piece

Cable band: 3pieces

Instruction manual: 1copy

Note: All specifications are subject to change without further notice.



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2003. 09 Printed in Taiwan

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