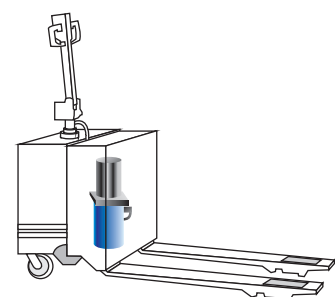
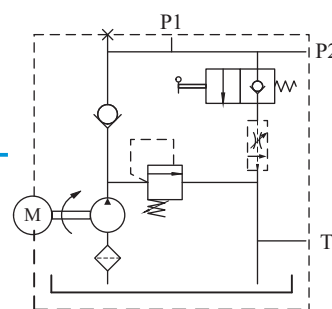


Application/應用



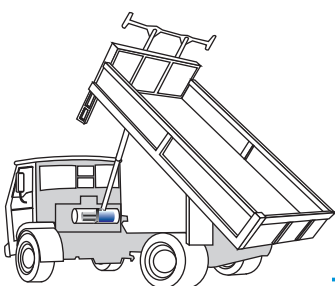
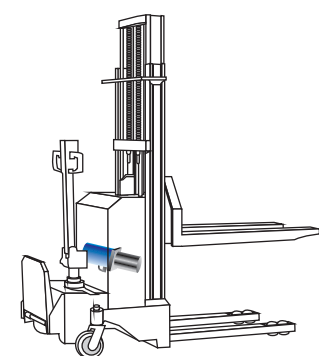
Pallet-Stackers / Fork-Lifts

A basic power pack unit consists of an electric motor, a hydraulic pump, a reservoir, a check valve, and a relief valve. With a single lever movement in one direction actuates a starter switch to power the load upwards while movement in the opposite direction opens a poppet valve allowing controlled lowering of the load.



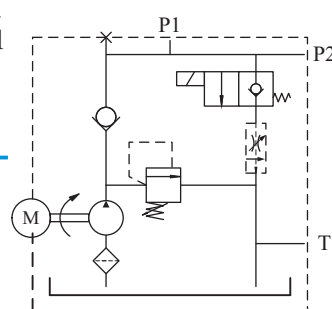
拖板車 / 電動堆高機

動力單元，基本由馬達，油泵，油箱加上逆止閥和安全閥所組成。透過手動閥來操作上下的動作，上的動作藉由激勵馬達啟動開關，使得物品上升，下的動作則作為打開卸載閥使得物品下降。也可以使用電動的下降方式。



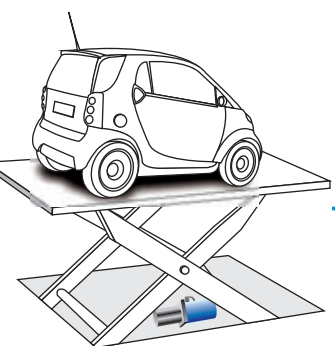
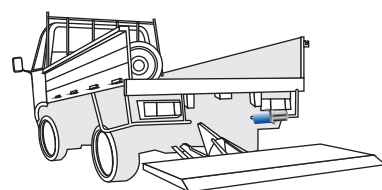
Tipplers / Tail-Lifts

Similar to the Stacker Pack except for tank size and control system. Lowering is by means of a solenoid poppet valve. Additional flow control valve makes it ideal for Tail-Lift to limit its lowering speed.



傾洩車 / 貨車尾門

一般來說，此應用的基本操作類似堆高機，因此中心油路塊組合和它差不多。唯動力單元的油箱會稍微大一些，下降方式多採用電動控制，並且可另外加上流量閥，來控制下降的速度。

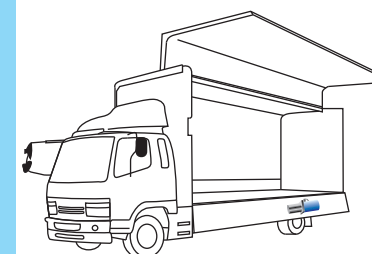
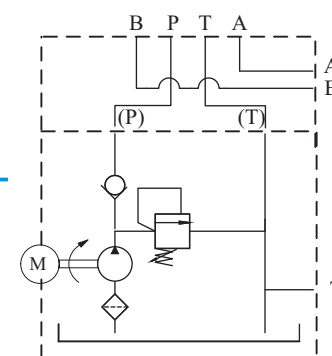


Scissor-Lifts

AC motor and bi-direction operation, with a sub-plate added on Center Block 2, is typical for Scissor-Lift application.

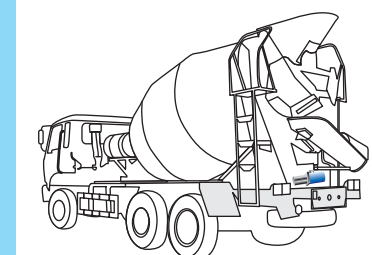
剪式升降機

大都屬於室內應用，所以使用AC交流電機，加上二號板的中心油路塊外接雙動電磁閥，做上升和下降的雙向控制。



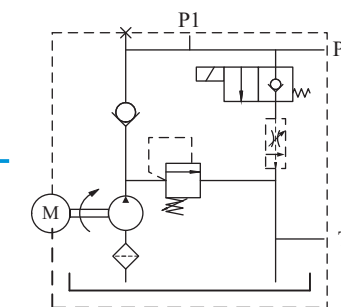
Gull-Wing Box Vans / Concrete-Mixers / Recovery Lifts

Battery-powered operation simplifies the vehicles' hydraulic system and makes your idea to be economic and reliable of accomplishment.



鷗翼車 / 水泥攪拌車 / 道路救援車

其他的應用，如鷗翼車兩側門的開閉，水泥攪拌車後斗升降，或是道路救援車等，皆可以由車輛電瓶來供給動力，搭配基本型的中心面板，加上簡易的液壓設計，來實現高效能，可靠度高且經濟實惠的應用。



Light and handy power pack for AC or DC connections: AC110V/220V or DC 12V/24V
輕巧又便利的動力單元，可選擇交流110V/220V或直流12V/24V的動力源。

Center block size ranging from 110 x110mm² to 156 x156 mm²

Standard Tank size ranging from 0.8L to 6.0L

Very flexible to adapt DC 500W to 3.0kW or AC 1.0HP to 3.0HP

可彈性選擇組合（標準規格）：

中心板尺寸最小110 x110mm²; 最大 156 x156 mm²

油箱大小最小0.8公升; 最大6.0公升

直流電機最小500W; 最大3000W

交流電機1.0HP~3.0HP

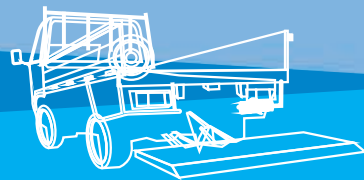
Main hydraulic parts, center blocks, are made by aluminum, therefore,

- No contamination from machining
- Light unit
- Cost benefits low

鋁合金材質的中心面板，加工精準，沒有金屬屑殘留問題，不僅輕量化且價格有競爭性。

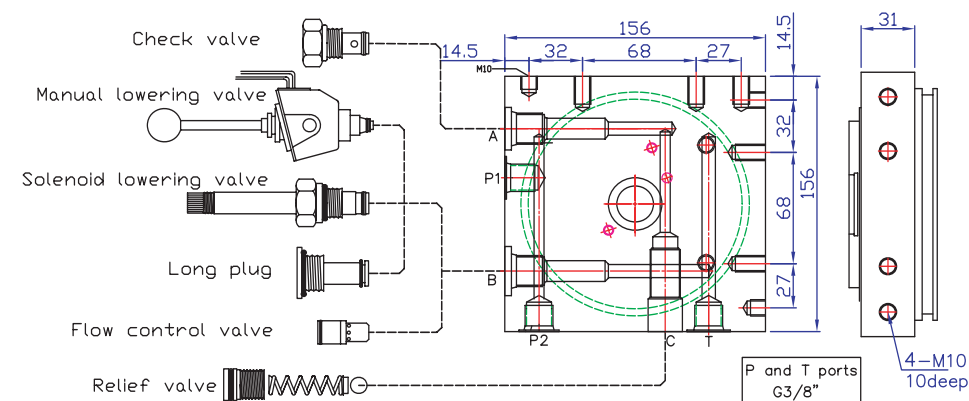
Several kinds of valve, such as check/lowering/relief/flow control valves, can be combined with each center block. Please select by the table, 'How To Order', on the last page of this catalogue, or feel free to contact us.

三種基本的中心面板，配合逆止閥/安全閥/流量控制閥/手(電)動下降閥，可以供客戶靈活應用，以符合小馬力的動力需求。關於選型的部份請參考最後一頁”如何選型”或跟我們的營銷人員聯絡。



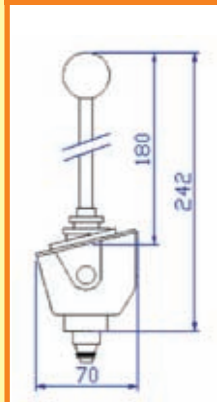
Basic Blocks/中心板

Center Block 1 / 中心板 1

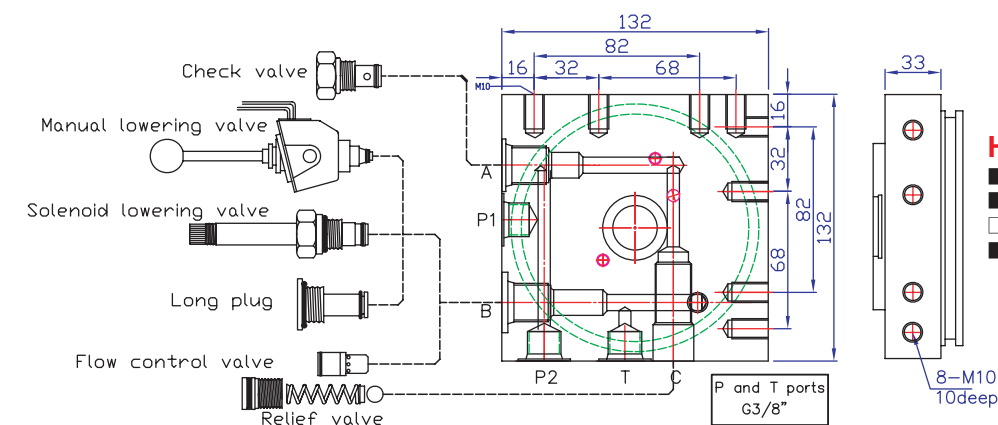


- H01B**
- DC 1.5kW / 2.0kW
 - DC 3.0kW
 - DC 500W / 800W
 - AC Electric motor

Manual lowering valve - 手動下降閥

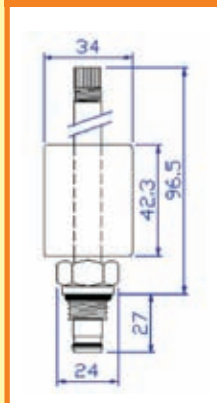


Center Block 3 / 中心板 3

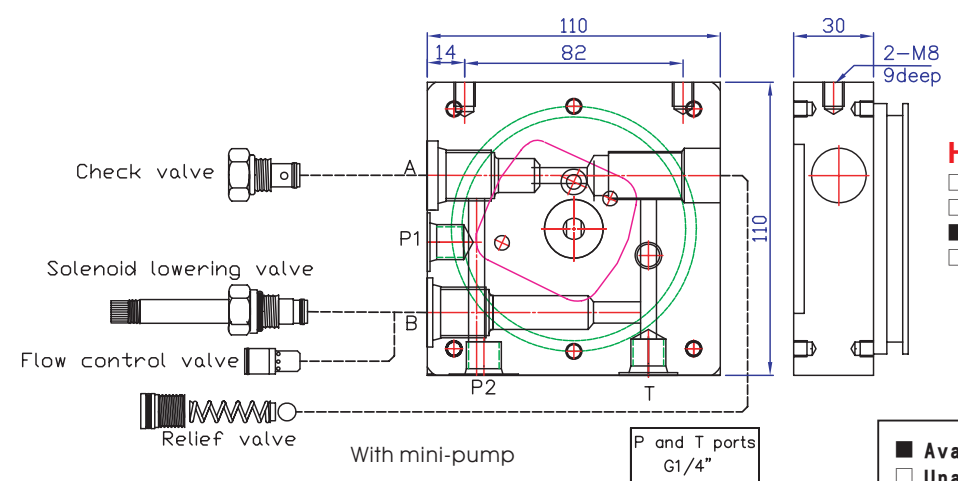


- H03B**
- DC 1.5kW / 2.0kW
 - DC 3.0kW
 - DC 500W / 800W
 - AC Electric motor

Solenoid lowering valve - 電動下降閥



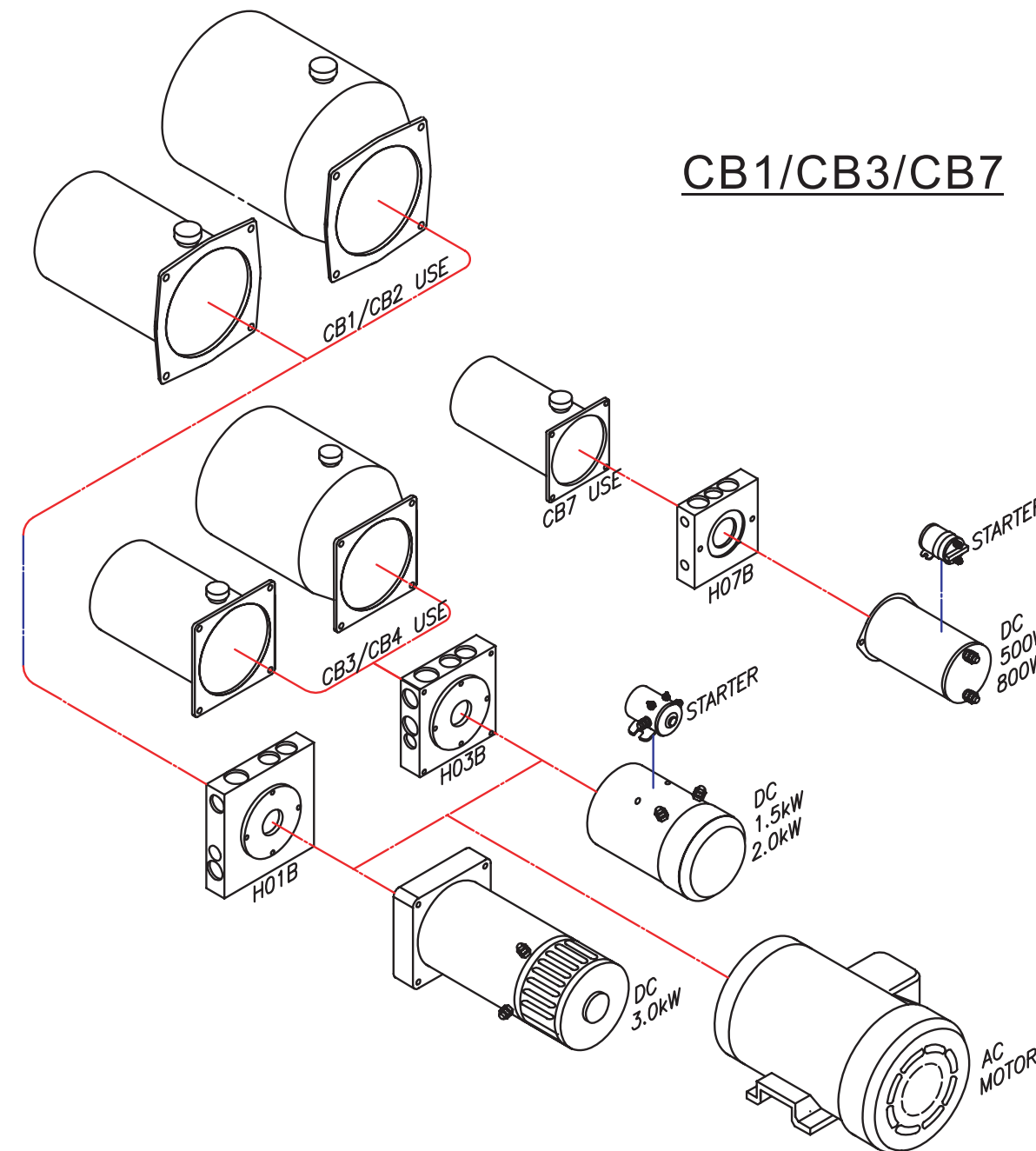
Center Block 7 / 中心板 7



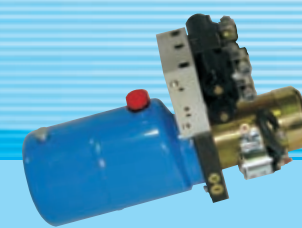
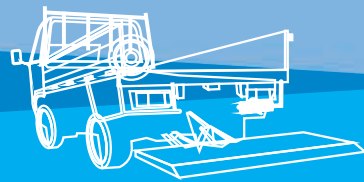
- H07B**
- DC 1.5kW / 2.0kW
 - DC 3.0kW
 - DC 500W / 800W
 - AC Electric motor

With mini-pump

- Available 可搭配
- Unavailable 不可搭配

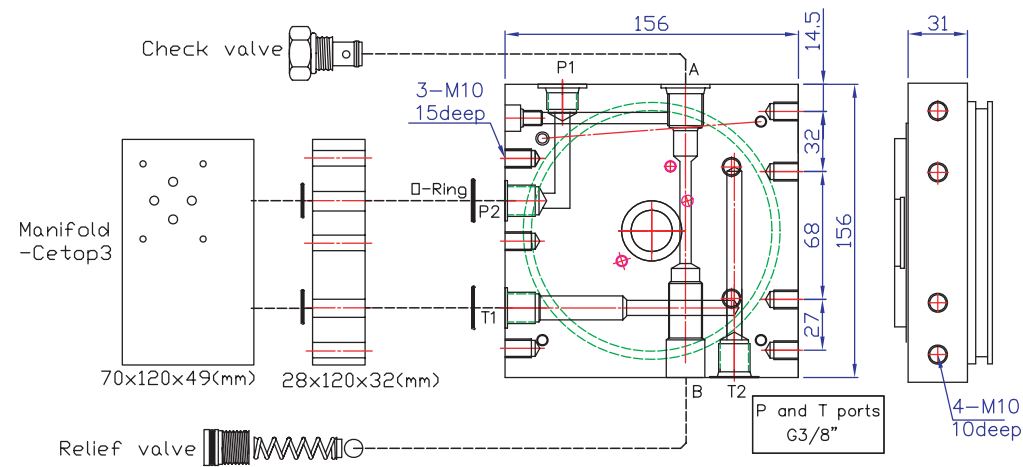


Reference Index / 參考頁數				
Electric Motor 電機	Starter Switch 啟動器	Center Block 中心板	Tank 油箱	Total Dimension 整體尺寸
DC/AC Dimension 尺寸	Electric Parts Connection 連接方式	CB1/CB3/CB7 中心板	Dimension 尺寸	Dimension 尺寸
Refer to 參考 P7 P8	Refer to 參考 P7	Refer to 參考 P3	Refer to 參考 P9	Refer to 參考 P9



Basic Blocks/中心板

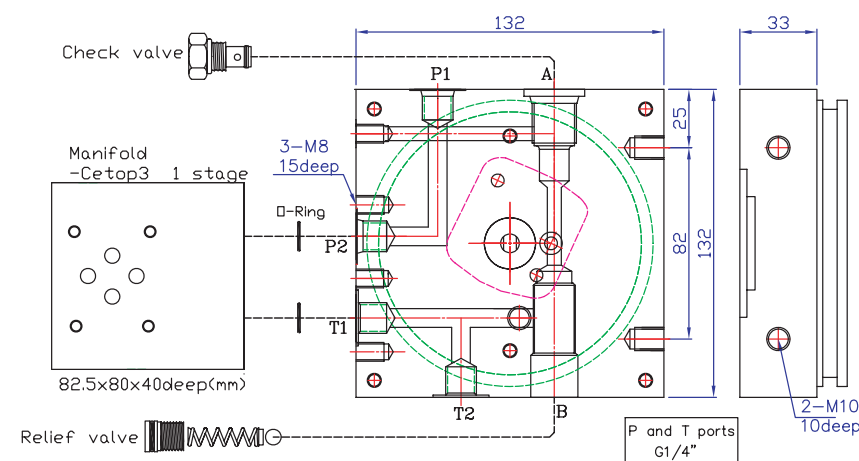
Center Block 2 / 中心板 2



H02B

- DC 1.5kW / 2.0kW
- DC 3.0kW
- DC 500W / 800W
- AC Electric motor

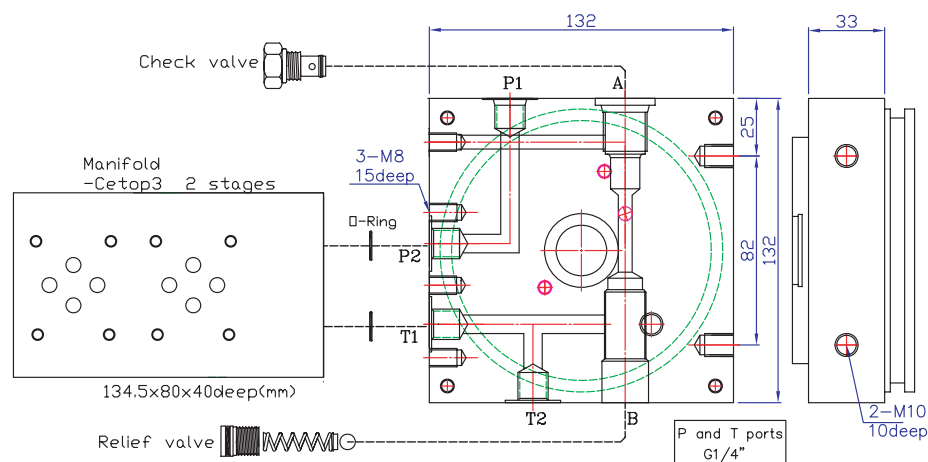
Center Block 4 / 中心板 4



With mini-pump

H04B2

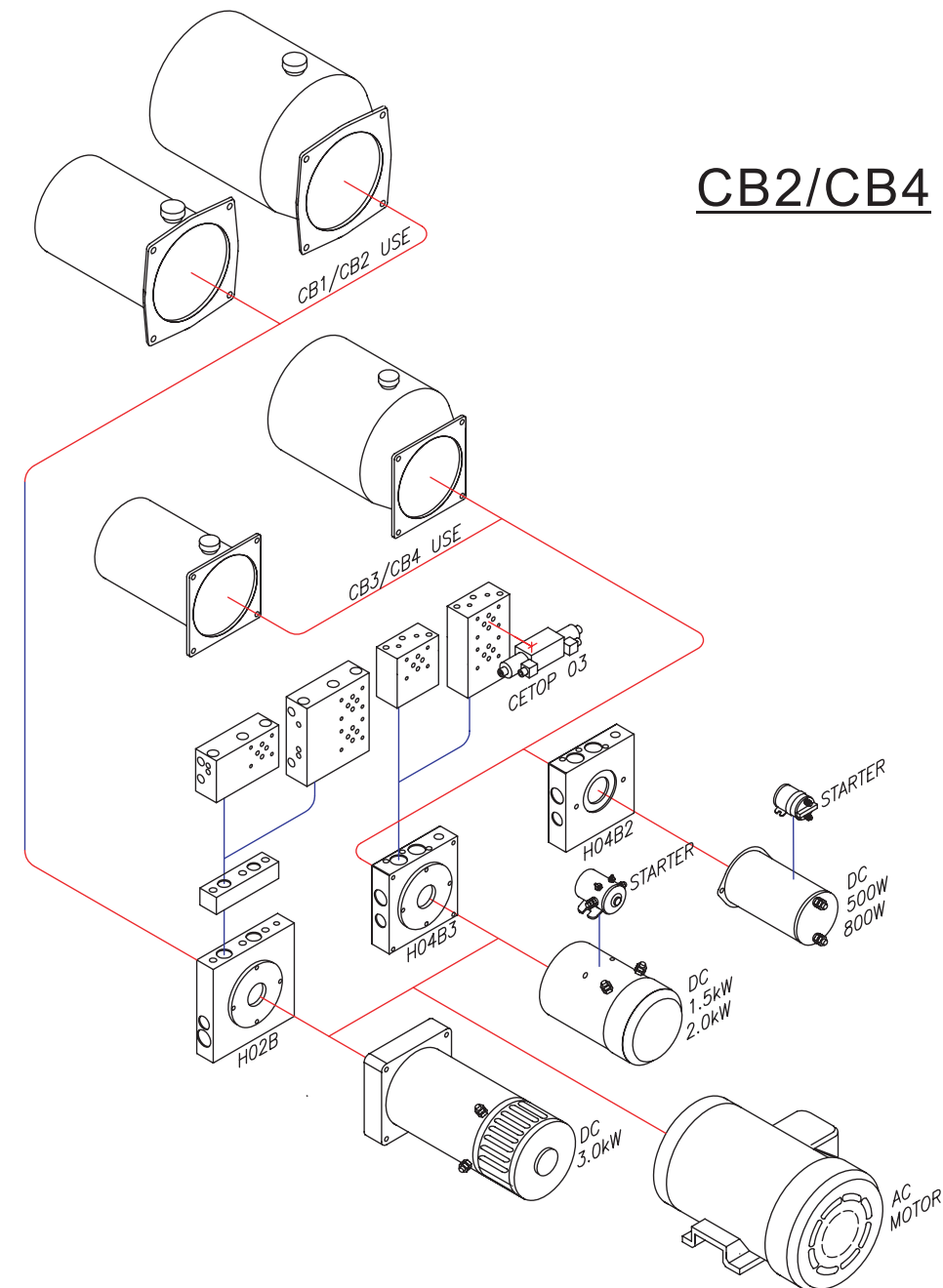
- DC 1.5kW / 2.0kW
- DC 3.0kW
- DC 500W / 800W
- AC Electric motor



H04B3

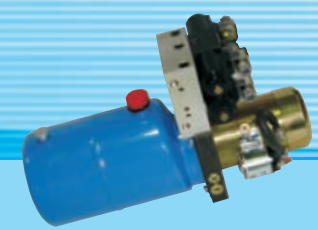
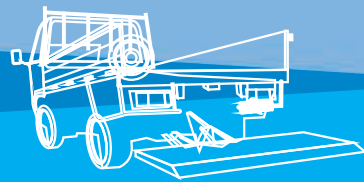
- DC 1.5kW / 2.0kW
- DC 3.0kW
- DC 500W / 800W
- AC Electric motor

- Available 可搭配
- Unavailable 不可搭配



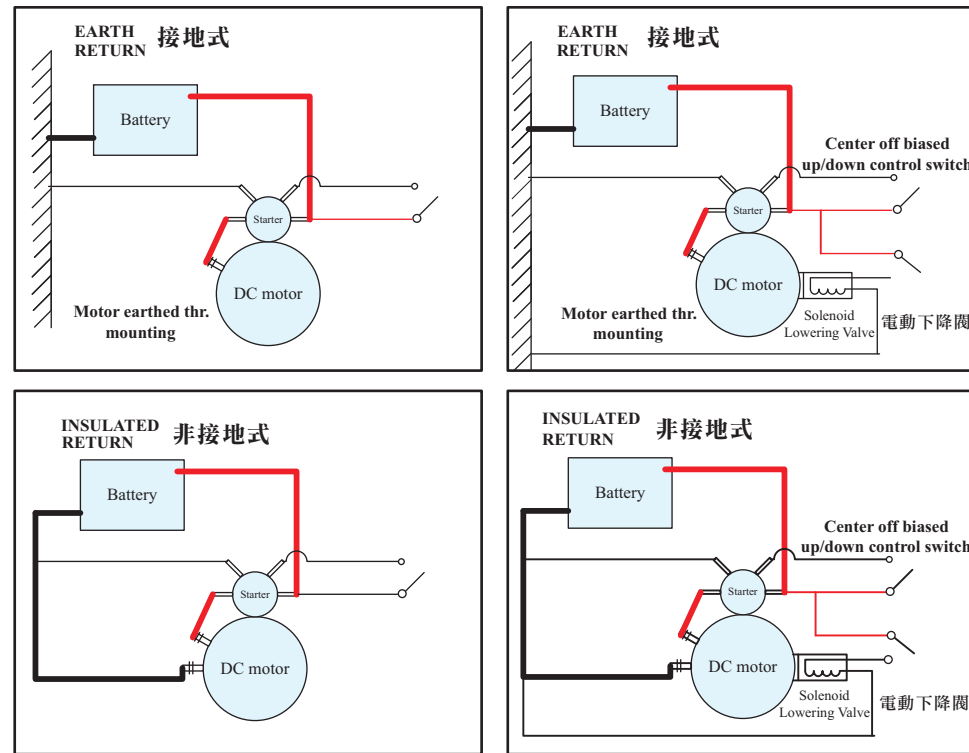
CB2/CB4

Reference Index / 參考頁數				
Electric Motor 電機	Starter Switch 啟動器	Center Block 中心板	Tank 油箱	Total Dimension 整體尺寸
DC/AC Dimension 尺寸	Electric Parts Connection 連接方式	CB1/CB3/CB7 中心板	Dimension 尺寸	Dimension 尺寸
Refer to 參考 P7 P8	Refer to 參考 P7	Refer to 參考 P5	Refer to 參考 P9	Refer to 參考 P9



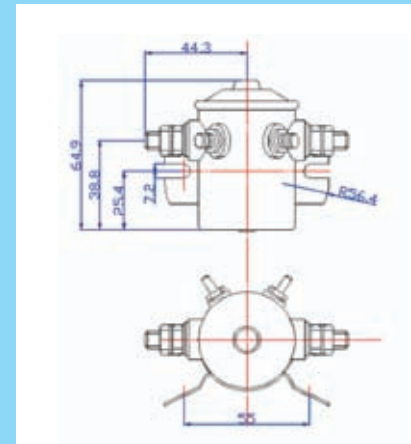
Electrical parts/電機部份

Connection Diagram / 馬達接線圖



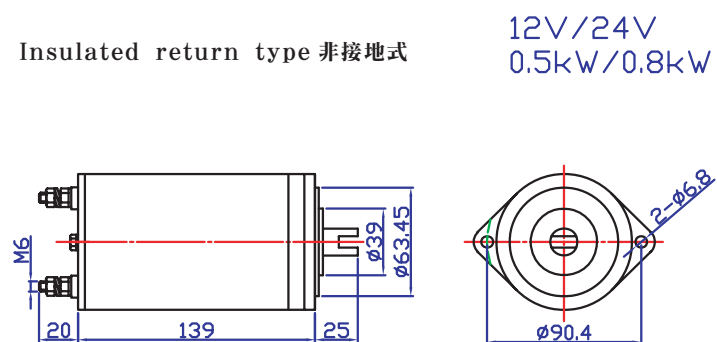
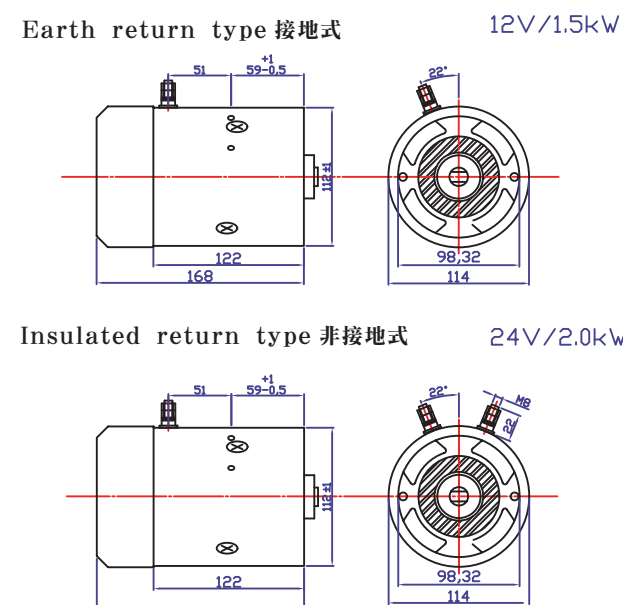
- Earth return type motor features 1 terminal, as insulated type features 2 terminals.
- The connection way is as left-hand side diagram showing.
- 接地式馬達帶有一個接線腳，非接地式馬達帶有兩個接線腳，接線方式如左圖所示。

Starter switch / 啟動開關



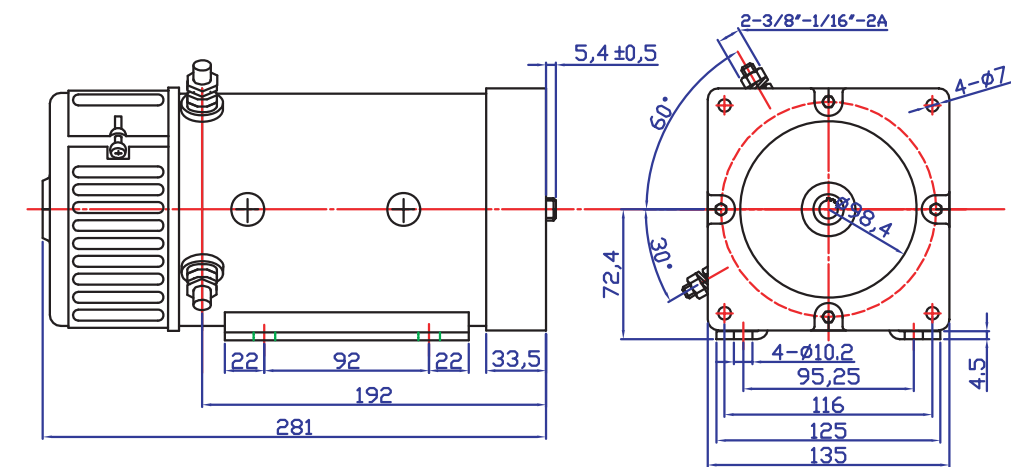
Dimension Drawing / 尺寸圖

- DC motor / 直流電機馬達 12V 1.5KW 24V 2.0KW

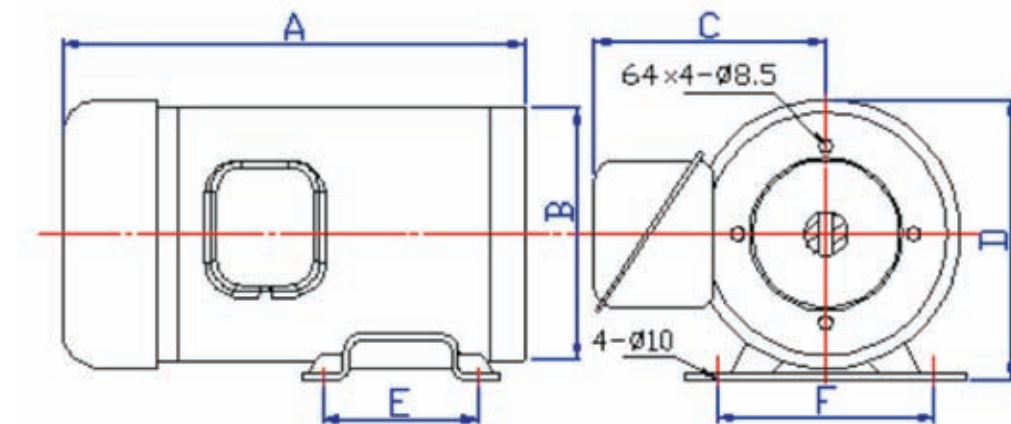


- DC motor / 直流電氣馬達

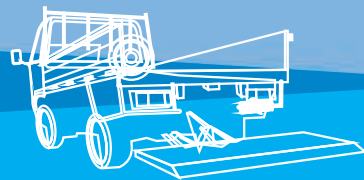
Insulated return type 非接地式 24V/3.0kW



- AC motor / 交流電機馬達



Power	Phase	Dimension(mm)					
		A	B	C	D	E	F
1HP 2P	1	278	164	164	171	100	140
	3	232	143	143	148	75	125
1HP 4P	1	278	164	149	171	100	140
	3	232	143	133	148	75	125
2HP 2P	1	278	164	149	171	100	140
	3	278	164	149	171	100	140
2HP 4P	1	298	164	149	171	100	140
	3	278	164	149	171	100	140
3HP 2P	3	290	165	149	178	100	140
	3	290	164	149	178	100	140

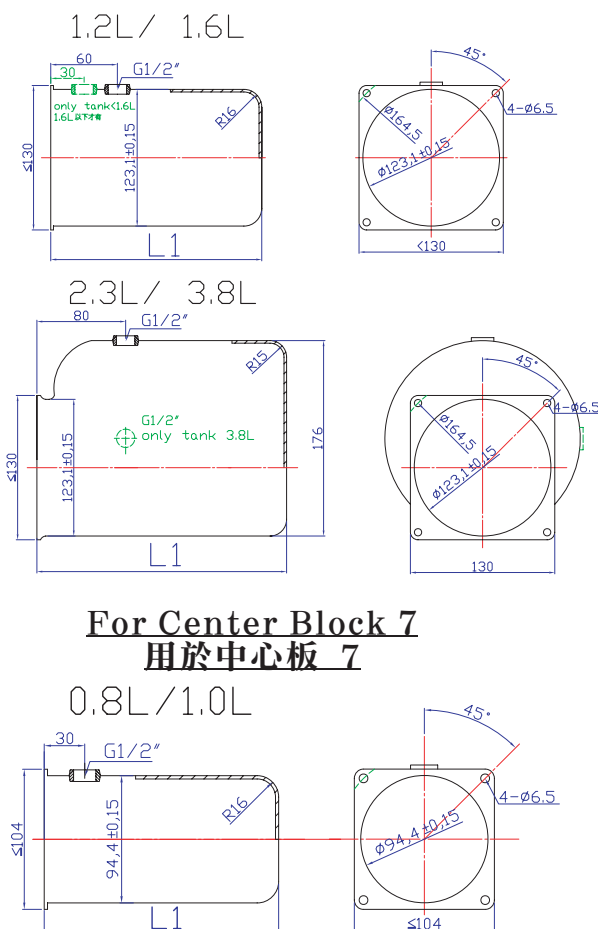
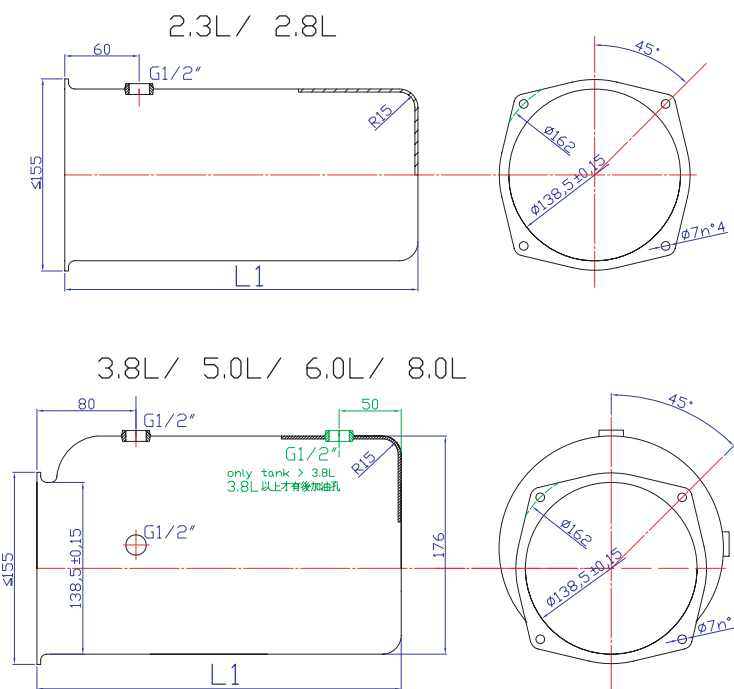


Installation / 組立安裝

Tank / 油箱規格

For Center Block 1, 2
用於中心板 1, 2

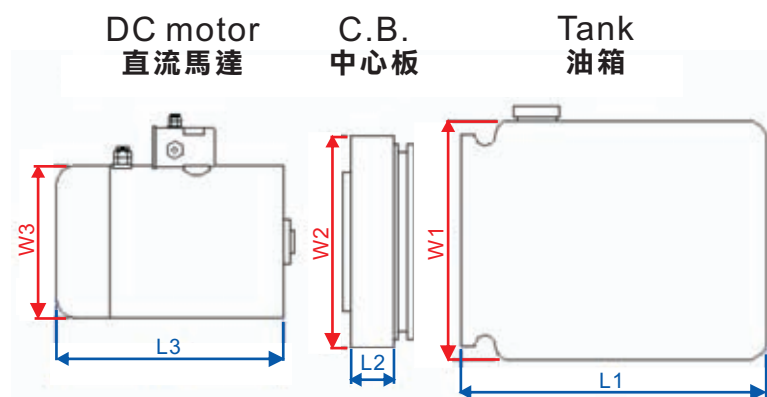
For Center Block 3, 4
用於中心板 3, 4



Overall Dimension / 整體尺寸

Center Block 1, 2 / 中心板 1, 2							
尺寸 容量	L1	W1	L2	W2	L3	W3	(L1+L2+L3)
2.3L	248	138.5	32	156	168	112	448mm
2.8L	285	138.5	32	156	168	112	485mm
3.8L	225	176	32	156	168	112	425mm
5.0L	294	176	32	156	168	112	494mm
6.0L	310	176	32	156	168	112	510mm

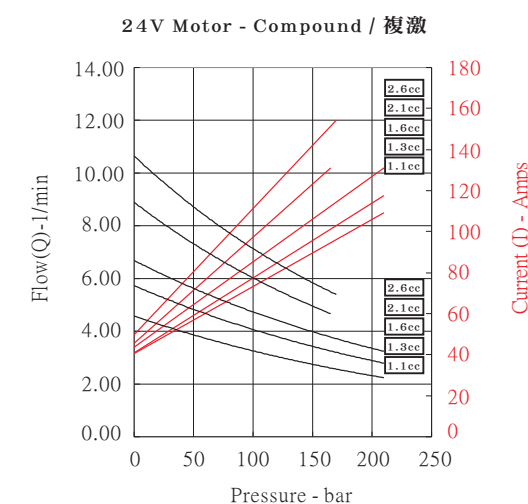
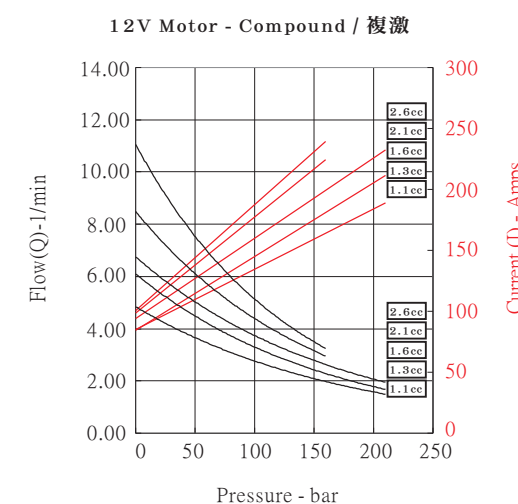
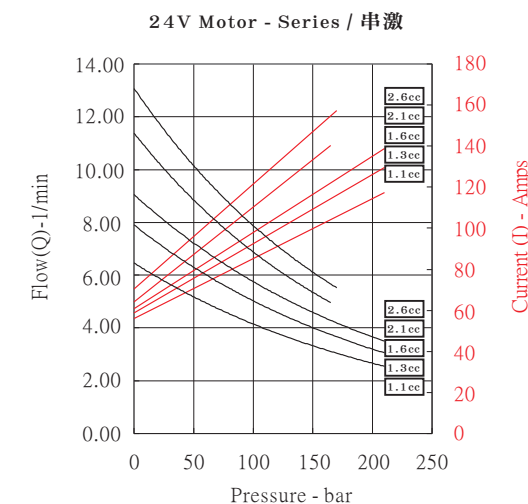
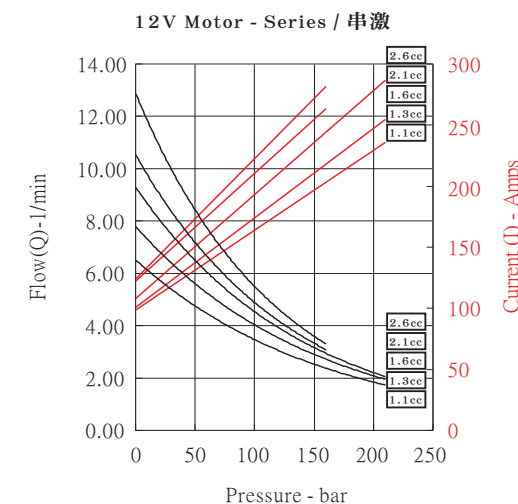
Center Block 3, 4 / 中心板 3, 4							
尺寸 容量	L1	W1	L2	W2	L3	W3	(L1+L2+L3)
1.2L	150	123.4	33	132	168	112	351mm
1.6L	190	123.4	33	132	168	112	391mm
2.3L	175	176	33	132	168	112	376mm
3.8L	225	176	33	132	168	112	426mm



Center Block 7 / 中心板 7							
尺寸 容量	L1	W1	L2	W2	L3	W3	(L1+L2+L3)
0.8L	174	95	30	110	160	80	364mm
1.0L	214	95	30	110	160	80	404mm

Performance Data / 性能參數

Characteristic / 曲線圖



All test curves are plotted by real operation of fork-lift, the maximum test pressure is due to the limitation of electric motor horse-power and the condition is as below showing.

所有測試曲線是在Smiths實際承受負載的情況下得來，因電氣馬達馬力限制，油泵測試最大壓力條件如：**1.1、1.3、1.6 cc/rev : 210 bar**，**2.1、2.6 cc/rev : 170 bar**

Technical Spec. / 技術規格

Hydraulic Fluid / 建議使用油

: Mineral based hydraulic oil / 礦物基液壓油

Viscosity vs. Ambient Temperature / 不同環境溫度下，液壓油使用黏度
> 0° C ISO VG22 to 68
< 0° C ISO VG15

Starter Switch Coil Int. Ratings / 啟動開關瞬間電流

12V 300 A
24V 300 A

Pilot Operated Lowering Valve / 引導式下降閥
Coil ratings (continuous) / 額定電流(連續)

12V 2.0A
24V 1.2A

1	E	S	1.6	G	V	12	S	2	A	1					
MOTOR 馬達			PUMP CAPACITY 油 泵排量		MOUNTING POSITION 安裝位置	TANK SIZE 油箱大小	LOWERING VALVE 下降閥	FLOW CONTROL VALVE 流量控制閥	ANCILLARY VALVE 輔助閥	CENTER BLOCK 中心板	MANUFACTURE NO. 製造編號				
DC Electric Motor 直流馬達															
1			-12 Volt 伏特			12	=1.2 litres	2	=2 L/Min						
2			-24 Volt 伏特			16	=1.6 litres	4	=4 L/Min						
	E		-Earth Return 接地式			23	=2.3 litres	6	=6 L/Min						
	R		-Insulated Return 非接地式			28	=2.8 litres	8	=8 L/Min						
	S		-Standard 標準型 Compound 複重 12V 1500W 24V 2000W			38	=3.8 litres	N	=NONE 無						
	J		-Permanent Magnet 500W 永磁式 500W			43	=4.3 litres								
	K		-Permanent Magnet 800W 永磁式 800W			50	=5.0 litres								
	T		-Series 3000W 串激 3000W			60	=6.0 litres								
	L		-Special 特殊要求			NN	=NONE 無								
AC Electric Motor 交流馬達															
A			-AC Motor 交流					S	-Solenoid operated 電磁閥						
1			-1 HP					M	-Manual operated 手動式						
2			-2 HP					X	-Special 特殊型						
3			-3 HP					N	=NONE 無						
	1		-2 P/1 Ø												
	2		-2 P/3 Ø												
	3		-4 P/1 Ø												
	4		-4 P/3 Ø												

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欣橋集團 SYMBRIDGE GROUP

2010.09

By Symbridge Taiwan