

# IS580 Hydraulic Servo Drive

## High-performance Hydraulic Servo Drive Closed-loop Pressure and Flow Control

### Features & Functions

- Dedicated servo drive for plastic injection molding machine
- Built-in multi pump configuration
- Servo drive for PMSM
- Closed loop FVC control
- Startup torque
  - 180% at 0Hz for FVC
- Simplified parameter for easy start up
- Flexible programmable I/Os
- Comprehensive trip diagnostics
- Output frequency 300Hz
- Communication (optional):
  - Modbus-RTU
  - CANlink / CANopen
  - PROFIBUS-DP

**NEW**

Wide operating voltage  
Three-phases 380 to 480 Vac  
11 to 160 kW  
Three-phases 220 Vac, 5.5~ 80kW

**NEW**  
CE c **UL** US  
**LISTED**  
**E467465**  
**IND.CONT.EQ.**

Operation in high ambient temperature  $\leq 50^{\circ}\text{C}$   
Note: If operating above  $40^{\circ}\text{C}$  derating is required

**NEW**

Internal DC reactor.  
Complies with EN 61800-3 category C2 (with external EMC filter)

**NEW**

Enhanced reliability with conformal coating, protection against humidity and dust pollution

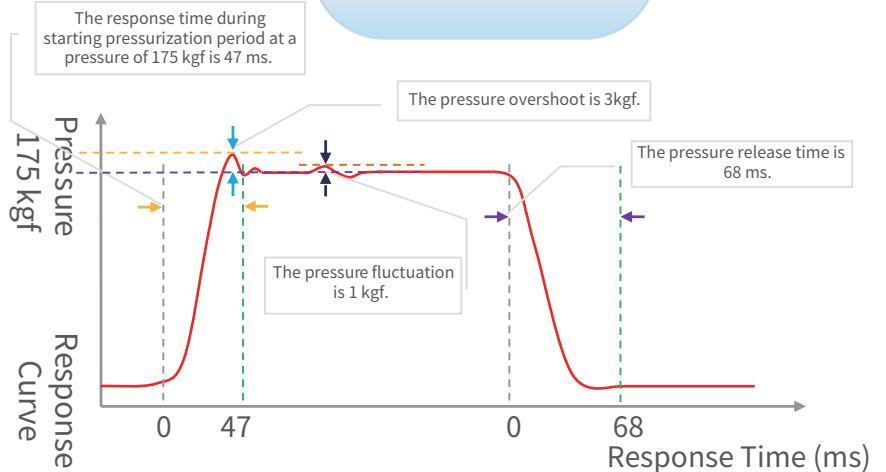
External AC output reactor (du/dt Filter)-(Optional)

Compact size

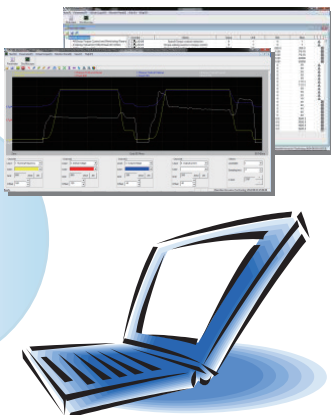


**NEW**

Optimized pressure and flow control algorithm



PC-Based Software simplified startup & backup<sup>\*1</sup>



\*1 PC comms kit is required (optional accessory)

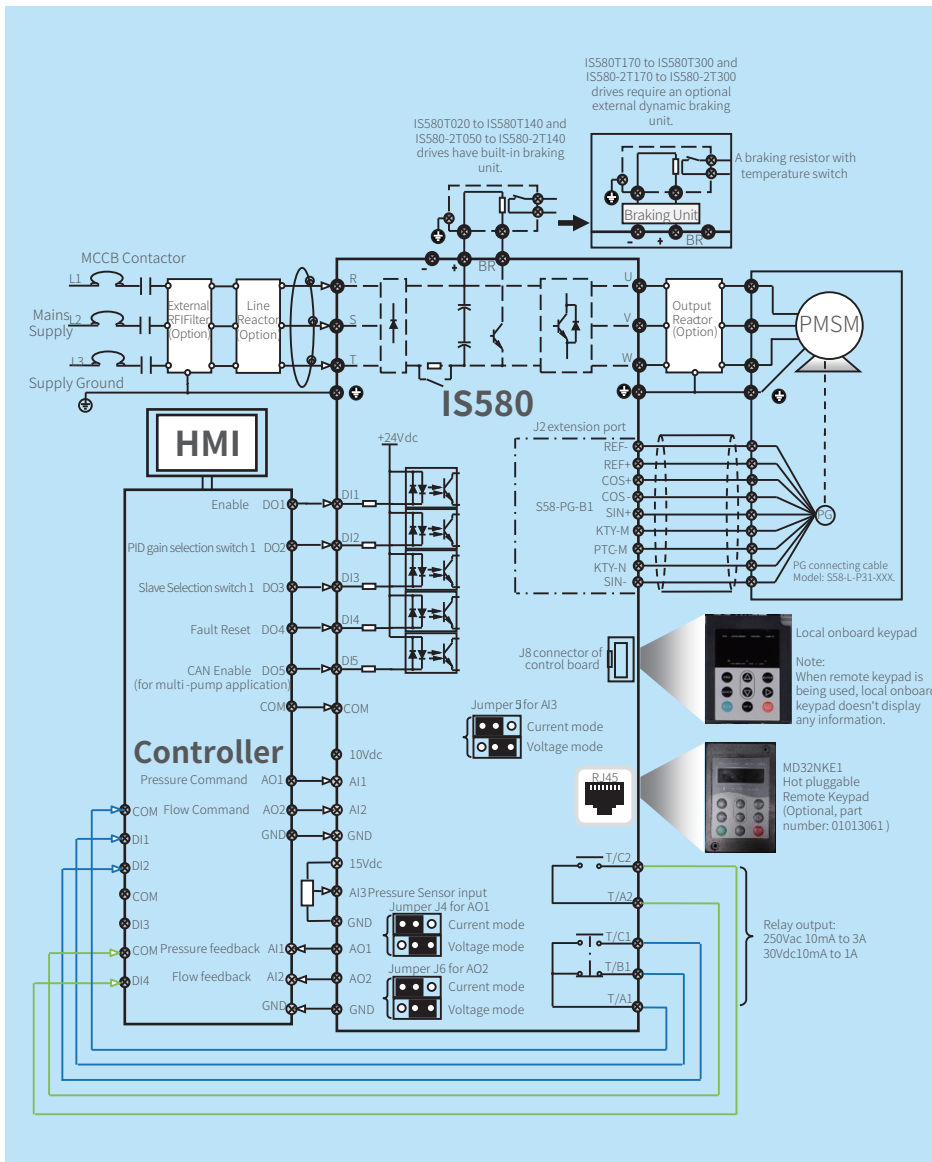
## General Specifications

Voltage Class		Three-phase 380 to 480 Vac												
Drive model: IS580Txxx-R1-INT		020	030	035	040	050	070	080	100	140	170	210	250	300
Frame size		T5				T6		T7		T8			T9	
Drive Input	Rated input voltage	Three-phase 380 to 480 Vac -15% to +10%												
	Rated input current [A]	36.3	45.1	49.5	59	57	69	89	106	139	164	196	240	287
	Power capacity [kVA]	30	39	45	54	52	63	81	97	127	150	179	220	263
	Rated input frequency	50/60 Hz ±5%												
Drive Output	Applicable motor [kW]	11	15	18.5	22	30	37	45	55	75	90	110	132	160
	Output current [A]*1	25	32	37	45	60	75	91	112	150	176	210	253	304
	Default carrier frequency, [kHz]	6	6	4	4	4	4	4	3	2	2	2	2	2
	Overload capacity	150% for 60 s & 180% for 2 s												
	Max. output voltage	Three-phase 380 Vac to 480 Vac (Proportional to input voltage)												
	Max. output frequency	300 Hz												
Braking Resistor	Recommended power [kW]	0.8	1.0	1.3	1.5	2.5	3.7	4.5	5.5	7.5	9	5.5 × 2	6.5 × 2	16
	Recommended resistance [Ω]	43	32	25	22	16	16	16	16	12	8	12 × 2	8 × 2	2.5
Braking unit		Built-in									MDBUN-60-5T x 2	MDBUN-60-5T x 2	MDBUN-90-5T x 2	MDBUN-90-5T x 2
DC reactor		Built-in												
Enclosure		IP 20												

Voltage Class		Three-phase 220 Vac							
Drive model: IS580-2Txxx-R1-INT		050	070	080	100	140	170	210	300
Frame size		T6		T7		T8			T9
Drive Input	Rated input voltage	Three-phase 220 Vac -15% to +10%							
	Rated input current [A]	57	69	89	106	139	164	196	287
	Power capacity [kVA]	27	32	42	49	64	75	90	132
	Rated input frequency	50/60 Hz ±5%							
Drive Output	Applicable motor [kW]	15	18.5	22	30	37	45	55	80
	Output current [A]*1	60	75	91	112	150	176	210	304
	Default carrier frequency [kHz]	4	4	4	4	3	2	2	2
	Overload capacity	150% for 60 s & 180% for 2 s							
	Max. output voltage	Three-phase 220 Vac (Proportional to input voltage)							
	Max. output frequency	300 Hz							
Braking Resistor	Recommended power [kW]	2.5	3.7	4.5	5.5	7.5	9	11	8 × 2
	Recommended resistance [Ω]	8	8	8	6	6	4	4	6 × 2
Braking unit		Built-in					MDBUN-90-2T	MDBUN-90-2T	MDBUN-60-2T x 2
DC reactor		Built-in							
Enclosure		IP 20							

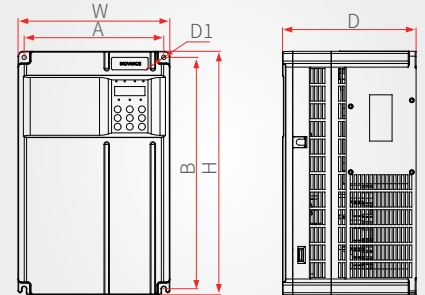
\*1 Rated output current at default carrier switching frequency.

## Typical Wiring Diagram

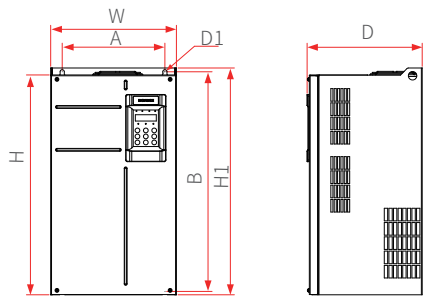


## Dimensions

IS580T020-R1-INT to IS580T070-R1-INT and IS580-2T050-R1-INT to IS580-2T070-R1-INT (plastic housing)



IS580T080-R1-INT to IS580T300-R1-INT and IS580-2T080-R1-INT to IS580-2T300-R1-INT (sheet metal housing)



Servo Drive Model	Frame size	Dimensions (mm)							Mass (kg)
		A	B	H	H1	W	D	D1	
IS580T020-R1-INT, IS580T030-R1-INT, IS580T035-R1-INT, IS580T040-R1-INT, IS580T050-R1-INT, IS580-2T050-R1-INT	T5	195	335	350	/	210	192	Ø6	9.1
IS580T070-R1-INT, IS580-2T070-R1-INT	T6	230	380	400	/	250	220	Ø7	17.5
IS580T080-R1-INT, IS580-2T080-R1-INT	T7	245	523	525	542	300	275	Ø10	35
IS580T100-R1-INT, IS580-2T100-R1-INT	T7	245	523	525	542	300	275	Ø10	35
IS580T140-R1-INT, IS580T170-R1-INT, IS580-2T140-R1-INT, IS580-2T170-R1-INT, IS580T210-R1-INT, IS580-2T210-R1-INT	T8	270	560	554	580	338	315	Ø10	51.5
IS580T250-R1-INT, IS580T300-R1-INT, IS580-2T300-R1-INT	T9	320	890	874	915	400	320	Ø10	85

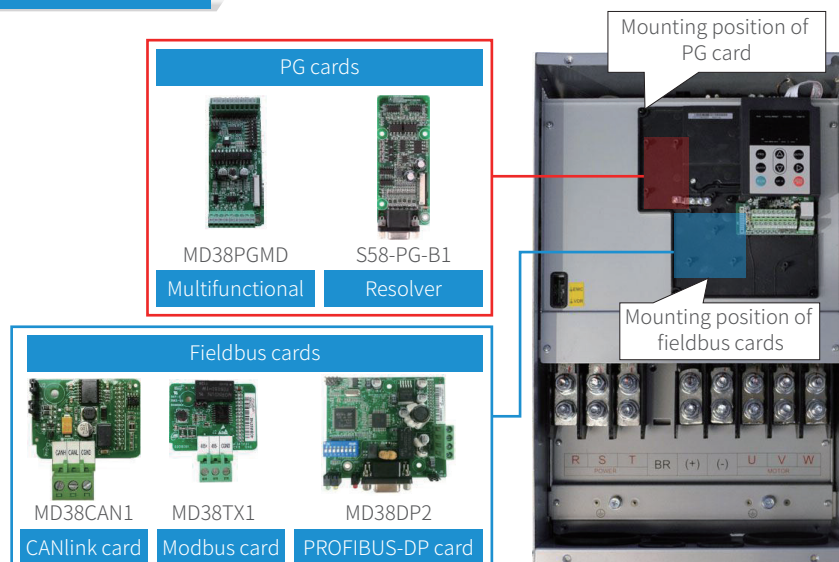
## Accessories List

Category	Model	Function description	Part No.
Braking unit	MDBUN	External braking unit for IS580T170-R1-INT/IS580-2T170-R1-INT and above models.	--
Keypad	MD32NKE1	Remote LED keypad.	01013061
Fieldbus	MD38CAN1	CANlink / CANopen communication card	01013100
	MD38DP2	PROFIBUS-DP communication card	01013144
	MD38TX1	Modbus communication card	01013112
PG card	S58-PG-B1	Resolver PG card for IS580 drive, including PTC and KTY interface.	01320001
	MD38PGMD	Multifunctional encoder card, 5V differential encoder A+,A-,B+,B-, Z+,Z-, emulated output 1:1, 500 kHz, terminal connect, no PTC or KTY	01013147
PC comms kit	MDPCKIT02	Kit for connection with a personal computer, to be used with PC software tools	--

## Adapted PG Cards & Cables

Servo Drive Model	ISMG Motor Model	PG Card Model	PG Card Part No.	Resolver Cable (xx: length in meters)	Cable Serial No.
IS580 series servo drive	ISMG1-xxx-xxxF	S58-PG-B1	1320001	S58-L-P30-xx	15040341~15040343(3/6/15m)
	ISMG2-xxx-xxxF				
	ISMG1-xxx-xxxFA			S58-L-P31-xx	15040570~15040574(3/6/8/12/15m)
	ISMG2-xxx-xxxFA				

## Extension cards installation



For more information, please contact our local offices.

**INOVANCE**  
Forward, Always Progressing

**Hong Kong SAR (export office)**  
Tel: +852 2751 6080  
info@inova-automation.com

**South Korea-Seoul**  
Tel: +82 (0) 10 7428 5732  
info@inova-automation.com

**India**  
Head Office Chennai  
Tel: +91 (0) 44 4380 0201  
Ahmedabad Tel: +91 (0) 79 4003 4274  
Mumbai Tel: +91 (0) 22 4971 5883  
Delhi Tel: +91 (0) 11 4165 4524  
Sales Network in Kolkata, Bengaluru, Coimbatore, Hyderabad, Pune  
info.inovaindia@inova-automation.com

**Germany-Stuttgart**  
Tel: +49 (0) 7144 8990  
sales.de@inovance.eu

**Italy-Milano**  
Tel: +39 (0) 2268 22318  
sales.it@inovance.eu

**France-Bordeaux**  
Tel: +33 (0) 5594 01050  
sales.fr@inovance.eu

**Turkey-Istanbul**  
Tel: +90 (0) 21 6706 1789  
info.turkey@inova-automation.com