

Technical Note 0 41

# 580 series short circuit current ratings (SCCR)

## SCCR of drives and drive packages

This document identifies the SCCR of a drive or drive package. The 580 drive and packaged drive products are UL/cUL approved with the ratings in the tables below.

Applicable support documentation:

- ACH580-01 Hardware Manual 3AXD50000044839
- ACH580 Installation, Operation and Maintenance Manual 3AXD50000049127
- ABB drives: Acceptable fuses document LVD-PNTN22U-EN, for alternative fuses that meet the UL requirement.

For proper fuse selection, refer to the appropriate manual for selection of fuses installed in the field. For alternative fuses, refer to the ABB drives: Acceptable fuses document LVD-PNTN22U-EN, for alternative fuses that meet the UL requirements.

Notes:

1. For 580-01, see the appropriate manual for proper fuse selection.
2. VDR and BDR require upstream fusing for UL SCCR, see the appropriate manual for proper fuse selection.
3. On selected PDR units, Upstream fuse required for 100 kA SCCR, consider the PCR equivalent for 100 kA without fuses

### Type designation label

The type designation label includes IEC and UL (NEC) ratings, SCCR, appropriate markings and the type designation and serial number, which allow identification of each drive. The type designation label is located on the left side of the drive. An example label is shown below.



### No. Description

1. Type code designation
2. Frame (size)
3. Degree of protection
4. UL type (Enclosure rating)
5. UL: SCCR (Short circuit current rating) = 100 kA
6. Nominal ratings in the supply voltage range
7. Valid markings
8. S/N: Serial number of format MYYWWXXXX, where
  - M: Manufacturing plant
  - YY: 16, 17, 18, ... for 2016, 2017, 2018, ...
  - WW: 01, 02, 03, ... for week 1, week 2, week 3, ...
  - XXXXX: Digits making the serial number unique

580 SERIES SHORT CIRCUIT CURRENT RATINGS (SCCR)

Network Voltage 208/230 V		SCCR with fuses	Drive Fuses provided by ABB to achieve SCCR
ACH580-01 ACQ580-01 ACS580-01			
HP	Type code		
1	04A6-2		
1.5	06A6-2		
2	07A5-2		
3	10A6-2		
5	017A-2		
7.5	024A-2		
10	031A-2		
15	046A-2	100 kA	No <sup>1</sup>
20	059A-2		
25	075A-2		
30	088A-2		
40	114A-2		
50	144A-2		
60	169A-2		
75	211A-2		
100	273A-2		

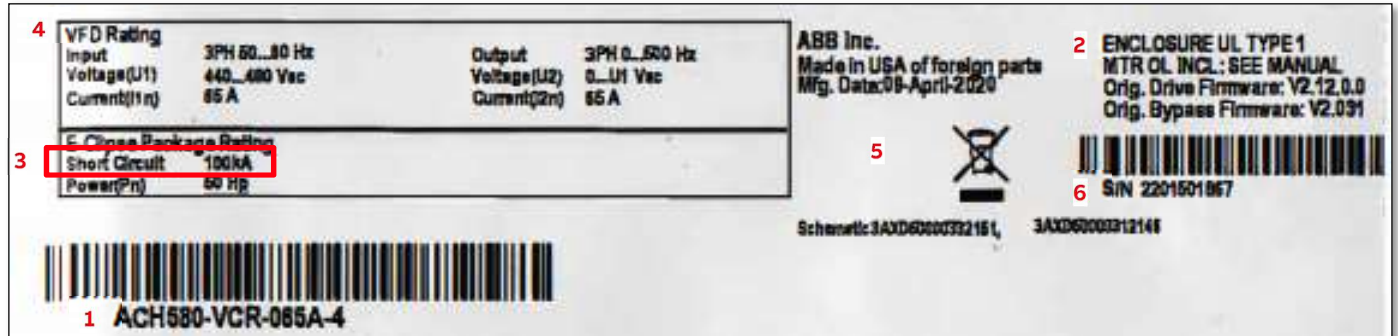
Network Voltage 480 V		SCCR with fuses	Drive Fuses provided by ABB to achieve SCCR
ACH580-01 ACQ580-01 ACS580-01			
HP	Type code		
1	02A1-4		
1.5	03A0-4		
2	03A5-4		
3	04A8-4		
5	07A6-4		
7.5	012A-4		
10	014A-4		
15	023A-4	100 kA	No <sup>1</sup>
20	027A-4		
25	034A-4		
30	044A-4		
40	052A-4		
50	065A-4		
60	077A-4		
75	096A-4		
100	124A-4		
125	156A-4		
150	180A-4		
200	240A-4		
250	302A-4		
300	361A-4		
350	414A-4		

580 SERIES SHORT CIRCUIT CURRENT RATINGS (SCCR)

Network Voltage 575V		SCCR with fuses	Drive Fuses provided by ABB to achieve SCCR
HP	Type code		
	ACH580-01 ACQ580-01 ACS580-01		
2	02A7-6		
3	03A9-6		
5	06A1-6		
7.5	09A0-6		
10	011A-6		
15	017A-6		
20	022A-6		
25	027A-6		
30	032A-6		
40	041A-6	100 kA	No <sup>1</sup>
50	052A-6		
60	062A-6		
75	077A-6		
100	099A-6		
125	125A-6		
150	144A-6		
200	192A-6		
250	242A-6		
250	271A-6		

### Type designation label

The type designation label includes UL (NEC) ratings, SCCR, appropriate markings and the type designation and serial number, which allow identification of each drive. The type designation label is located on the side of the drive. An example label is shown below.



#### No. Description

1. Type code designation
2. UL type (Enclosure rating)
3. UL: SCCR (Short circuit current rating) = 100 kA
4. Nominal ratings in the supply voltage range
5. Valid markings
6. S/N: Serial number of format MYYWWXXXX, where  
M: Manufacturing plant  
YY: 16, 17, 18, ... for 2016, 2017, 2018, ...  
WW: 01, 02, 03, ... for week 1, week 2, week 3, ...  
XXXXX: Digits making the serial number unique

580 SERIES SHORT CIRCUIT CURRENT RATINGS (SCCR)

Network Voltage 208/230 V		SCCR With fuses	Drive isolation fuse provided by ABB	Upstream fuses required to achieve this SCCR
HP	Type code			
1	ACH580-VCR-04A6-2	100 kA	Yes	No
1.5	ACH580-VCR-06A6-2			
2	ACH580-VCR-07A5-2			
3	ACH580-VCR-10A6-2			
5	ACH580-VCR-017A-2			
7.5	ACH580-VCR-024A-2			
10	ACH580-VCR-031A-2			
15	ACH580-VCR-046A-2			
20	ACH580-VCR-059A-2			
25	ACH580-VCR-075A-2			
1	ACH580-VDR-04A6-2	100 kA	Yes	Yes <sup>2</sup>
1.5	ACH580-VDR-06A6-2			
2	ACH580-VDR-07A5-2			
3	ACH580-VDR-10A6-2			
5	ACH580-VDR-017A-2			
7.5	ACH580-VDR-024A-2			
10	ACH580-VDR-031A-2			
15	ACH580-VDR-046A-2			
20	ACH580-VDR-059A-2			
25	ACH580-VDR-075A-2			

580 SERIES SHORT CIRCUIT CURRENT RATINGS (SCCR)

Network Voltage 480 V		SCCR with fuses	Drive Fuses provided by ABB to achieve SCCR	Upstream fuses to achieve UL SCCR
HP	Type code			
1	ACH580-VCR-02A1-4	100 kA	Yes	No
1.5	ACH580-VCR-03A0-4			
2	ACH580-VCR-03A5-4			
3	ACH580-VCR-04A8-4			
5	ACH580-VCR-07A6-4			
7.5	ACH580-VCR-012A-4			
10	ACH580-VCR-014A-4			
15	ACH580-VCR-023A-4			
20	ACH580-VCR-027A-4			
25	ACH580-VCR-034A-4			
30	ACH580-VCR-044A-4			
40	ACH580-VCR-052A-4			
50	ACH580-VCR-065A-4			
60	ACH580-VCR-077A-4			
1	ACH580-VDR-02A1-4	100 kA	Yes	Yes <sup>2</sup>
1.5	ACH580-VDR-03A0-4			
2	ACH580-VDR-03A5-4			
3	ACH580-VDR-04A8-4			
5	ACH580-VDR-07A6-4			
7.5	ACH580-VDR-012A-4			
10	ACH580-VDR-014A-4			
15	ACH580-VDR-023A-4			
20	ACH580-VDR-027A-4			
25	ACH580-VDR-034A-4			
30	ACH580-VDR-044A-4			
40	ACH580-VDR-052A-4			
50	ACH580-VDR-065A-4			
60	ACH580-VDR-077A-4			

580 SERIES SHORT CIRCUIT CURRENT RATINGS (SCCR)

Network Voltage 575 V		SCCR With fuses	Drive Fuse provided by ABB	Upstream fuses to achieve UL SCCR
HP	Type code			
2	ACH580-VCR-02A7-6	10 kA	Yes	No
3	ACH580-VCR-03A9-6			
5	ACH580-VCR-06A1-6			
7.5	ACH580-VCR-09A0-6			
10	ACH580-VCR-011A-6			
15	ACH580-VCR-017A-6			
20	ACH580-VCR-022A-6			
25	ACH580-VCR-027A-6			
30	ACH580-VCR-032A-6			
40	ACH580-VCR-041A-6			
50	ACH580-VCR-052A-6			
60	ACH580-VCR-062A-6			
75	ACH580-VCR-077A-6			
2	ACH580-VDR-02A7-6			
3	ACH580-VDR-03A9-6			
5	ACH580-VDR-06A1-6			
7.5	ACH580-VDR-09A0-6			
10	ACH580-VDR-011A-6			
15	ACH580-VDR-017A-6			
20	ACH580-VDR-022A-6			
25	ACH580-VDR-027A-6			
30	ACH580-VDR-032A-6			
40	ACH580-VDR-041A-6			
50	ACH580-VDR-052A-6			
60	ACH580-VDR-062A-6			
75	ACH580-VDR-077A-6			



580 SERIES SHORT CIRCUIT CURRENT RATINGS (SCCR)

Network Voltage 208/230 V		Base Drive Frame size	UL SCCR With fuses	Drive Fuse provided by ABB	Upstream fuses to achieve UL SCCR
HP	Type code				
1	ACH580-BCR-04A6-2	R1			
1.5	ACH580-BCR-06A6-2	R1			
2	ACH580-BCR-07A5-2	R1			
3	ACH580-BCR-10A6-2	R1			
5	ACH580-BCR-017A-2	R1			
7.5	ACH580-BCR-024A-2	R2			
10	ACH580-BCR-031A-2	R2			
15	ACH580-BCR-046A-2	R3	100 kA	Yes	No
20	ACH580-BCR-059A-2	R3			
25	ACH580-BCR-075A-2	R4			
30	ACH580-BCR-088A-2	R5			
40	ACH580-BCR-114A-2	R5			
50	ACH580-BCR-144A-2	R6			
60	ACH580-BCR-169A-2	R7			
75	ACH580-BCR-211A-2	R7			
100	ACH580-BCR-273A-2	R8			
1	ACH580-BDR-04A6-2	R1			
1.5	ACH580-BDR-06A6-2	R1			
2	ACH580-BDR-07A5-2	R1			
3	ACH580-BDR-10A6-2	R1			
5	ACH580-BDR-017A-2	R1			
7.5	ACH580-BDR-024A-2	R2			
10	ACH580-BDR-031A-2	R2			
15	ACH580-BDR-046A-2	R3	100 kA	Yes	Yes <sup>2</sup>
20	ACH580-BDR-059A-2	R3			
25	ACH580-BDR-075A-2	R4			
30	ACH580-BDR-088A-2	R5			
40	ACH580-BDR-114A-2	R5			
50	ACH580-BDR-144A-2	R6			
60	ACH580-BDR-169A-2	R7			
75	ACH580-BDR-211A-2	R7			
100	ACH580-BDR-273A-2	R8			

580 SERIES SHORT CIRCUIT CURRENT RATINGS (SCCR)

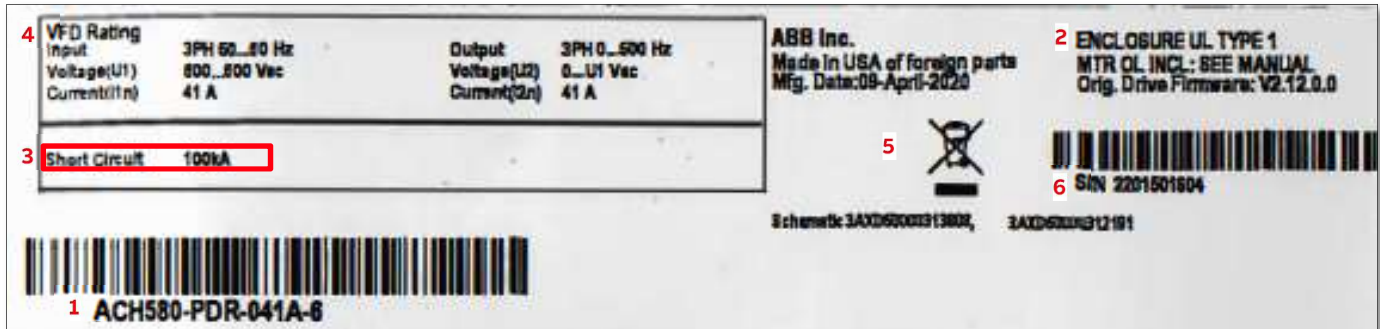
Network Voltage 480 V		Base Drive Frame size	SCCR With fuses	Drive Fuse provided by ABB	Upstream fuses to achieve UL SCCR
HP	Type code				
1	ACH580-BCR-02A1-4	R1			
1.5	ACH580-BCR-03A0-4	R1			
2	ACH580-BCR-03A5-4	R1			
3	ACH580-BCR-04A8-4	R1			
5	ACH580-BCR-07A6-4	R1			
7.5	ACH580-BCR-012A-4	R1			
10	ACH580-BCR-014A-4	R2			
15	ACH580-BCR-023A-4	R2			
20	ACH580-BCR-027A-4	R3			
25	ACH580-BCR-034A-4	R3			
30	ACH580-BCR-044A-4	R3			
40	ACH580-BCR-052A-4	R4	100 kA	Yes	No
50	ACH580-BCR-065A-4	R4			
60	ACH580-BCR-077A-4	R4			
75	ACH580-BCR-096A-4	R5			
100	ACH580-BCR-124A-4	R6			
125	ACH580-BCR-156A-4	R7			
150	ACH580-BCR-180A-4	R7			
200	ACH580-BCR-240A-4	R8			
250	ACH580-BDR-302A-4	R9			
300	ACH580-BDR-361A-4	R9			
350	ACH580-BDR-414A-4	R9			
1	ACH580-BDR-02A1-4	R1			
1.5	ACH580-BDR-03A0-4	R1			
2	ACH580-BDR-03A5-4	R1			
3	ACH580-BDR-04A8-4	R1			
5	ACH580-BDR-07A6-4	R1			
7.5	ACH580-BDR-012A-4	R1			
10	ACH580-BDR-014A-4	R2			
15	ACH580-BDR-023A-4	R2			
20	ACH580-BDR-027A-4	R3			
25	ACH580-BDR-034A-4	R3			
30	ACH580-BDR-044A-4	R3			
40	ACH580-BDR-052A-4	R4	100 kA	Yes	Yes <sup>2</sup>
50	ACH580-BDR-065A-4	R4			
60	ACH580-BDR-077A-4	R4			
75	ACH580-BDR-096A-4	R5			
100	ACH580-BDR-124A-4	R6			
125	ACH580-BDR-156A-4	R7			
150	ACH580-BDR-180A-4	R7			
200	ACH580-BDR-240A-4	R8			
250	ACH580-BDR-302A-4	R9			
300	ACH580-BDR-316A-4	R9			
350	ACH580-BDR-414A-4	R9			

580 SERIES SHORT CIRCUIT CURRENT RATINGS (SCCR)

Network Voltage 575 V		Base Drive Frame size	SCCR With fuses	Drive Fuse provided by ABB	Upstream fuses to achieve UL SCCR
HP	Type code				
2	ACH580-BCR-02A7-6	R2	10 kA	Yes	No
3	ACH580-BCR-03A9-6	R2			
5	ACH580-BCR-06A1-6	R2			
7.5	ACH580-BCR-09A0-6	R2			
10	ACH580-BCR-011A-6	R2			
15	ACH580-BCR-017A-6	R2			
20	ACH580-BCR-022A-6	R3			
25	ACH580-BCR-027A-6	R3			
30	ACH580-BCR-032A-6	R3			
40	ACH580-BCR-041A-6	R5			
50	ACH580-BCR-052A-6	R5			
60	ACH580-BCR-062A-6	R5			
75	ACH580-BCR-077A-6	R5			
100	ACH580-BCR-099A-6	R7			
125	ACH580-BCR-125A-6	R7			
150	ACH580-BCR-144A-6	R8			
2	ACH580-BDR-02A7-6	R2	100 kA	Yes	Yes <sup>2</sup>
3	ACH580-BDR-03A9-6	R2			
5	ACH580-BDR-06A1-6	R2			
7.5	ACH580-BDR-09A0-6	R2			
10	ACH580-BDR-011A-6	R2			
15	ACH580-BDR-017A-6	R2			
20	ACH580-BDR-022A-6	R3			
25	ACH580-BDR-027A-6	R3			
30	ACH580-BDR-032A-6	R3			
40	ACH580-BDR-041A-6	R5			
50	ACH580-BDR-052A-6	R5			
60	ACH580-BDR-062A-6	R5			
75	ACH580-BDR-077A-6	R5			
100	ACH580-BDR-099A-6	R7			
125	ACH580-BDR-125A-6	R7			
150	ACH580-BDR-144A-6	R8			

### Type designation label

The type designation label includes UL (NEC) ratings, SCCR, appropriate markings and the type designation and serial number, which allow identification of each drive. The type designation label is located on the side of the drive. An example label is shown below.



#### No. Description

1. Type code designation
2. UL type (Enclosure rating)
3. UL: SCCR (Short circuit current rating) = 100 kA
4. Nominal ratings in the supply voltage range
5. Valid markings
6. S/N: Serial number of format MYYWWXXXX, where
  - M: Manufacturing plant
  - YY: 16, 17, 18, ... for 2016, 2017, 2018, ...
  - WW: 01, 02, 03, ... for week 1, week 2, week 3, ...
  - XXXXX: Digits making the serial number unique

580 SERIES SHORT CIRCUIT CURRENT RATINGS (SCCR)

208/230 V		Base Drive Frame size	SCCR With fuses	Drive Fuse provided by ABB	Upstream fuses to achieve UL SCCR
HP	Type code				
1	ACH580-PCR-04A6-2	R1	100 kA	Yes	No
1.5	ACH580-PCR-06A6-2	R1			
2	ACH580-PCR-07A5-2	R1			
3	ACH580-PCR-10A6-2	R1			
5	ACH580-PCR-017A-2	R1			
7.5	ACH580-PCR-024A-2	R2			
10	ACH580-PCR-031A-2	R2			
15	ACH580-PCR-046A-2	R3			
20	ACH580-PCR-059A-2	R3			
25	ACH580-PCR-075A-2	R4			
30	ACH580-PCR-088A-2	R5			
40	ACH580-PCR-114A-2	R5			
50	ACH580-PCR-144A-2	R6			
60	ACH580-PCR-169A-2	R7			
75	ACH580-PCR-211A-2	R7			
100	ACH580-PCR-273A-2	R8			
1	ACH580-PDR-04A6-2	R1	100 kA	Yes	No
1.5	ACH580-PDR-06A6-2	R1			
2	ACH580-PDR-07A5-2	R1			
3	ACH580-PDR-10A6-2	R1			
5	ACH580-PDR-017A-2	R1			
7.5	ACH580-PDR-024A-2	R2			
10	ACH580-PDR-031A-2	R2			
15	ACH580-PDR-046A-2	R3			
20	ACH580-PDR-059A-2	R3			
25	ACH580-PDR-075A-2	R4			
30	ACH580-PDR-088A-2	R5			
40	ACH580-PDR-114A-2	R5			
50	ACH580-PDR-144A-2	R6			
60	ACH580-PDR-169A-2	R7			
75	ACH580-PDR-211A-2	R7			
75	ACH580-PCR-211A-2	R7		Yes	Yes <sup>3</sup>
100	ACH580-PDR-273A-2	R8		Yes	No
100	ACH580-PCR-273A-2	R8		Yes	Yes <sup>3</sup>
100	ACH580-PCR-273A-2	R8		Yes	No

580 SERIES SHORT CIRCUIT CURRENT RATINGS (SCCR)

480 V		Base Drive Frame size	SCCR With fuses	Drive Fuse provided by ABB	Upstream fuses to achieve UL SCCR
HP	Type code				
1	ACH580-PCR-02A1-4	R1			
1.5	ACH580-PCR-03A0-4	R1			
2	ACH580-PCR-03A5-4	R1			
3	ACH580-PCR-04A8-4	R1			
5	ACH580-PCR-07A6-4	R1			
7.5	ACH580-PCR-012A-4	R1			
10	ACH580-PCR-014A-4	R2			
15	ACH580-PCR-023A-4	R2			
20	ACH580-PCR-027A-4	R3			
25	ACH580-PCR-034A-4	R3			
30	ACH580-PCR-044A-4	R3			
40	ACH580-PCR-052A-4	R4	100 kA	Yes	No
50	ACH580-PCR-065A-4	R4			
60	ACH580-PCR-077A-4	R4			
75	ACH580-PCR-096A-4	R5			
100	ACH580-PCR-124A-4	R6			
125	ACH580-PCR-156A-4	R7			
150	ACH580-PCR-180A-4	R7			
200	ACH580-PCR-240A-4	R8			
250	ACH580-PCR-302A-4	R9			
300	ACH580-PCR-361A-4	R9			
350	ACH580-PCR-414A-4	R9			

580 SERIES SHORT CIRCUIT CURRENT RATINGS (SCCR)

480 V		Base Drive Frame Size	SCCR With fuses	Drive Fuse provided by ABB	Upstream fuses to achieve UL SCCR		
HP	Type code						
1	ACH580-PDR-02A1-4	R1	100 kA				
1.5	ACH580-PDR-03A0-4	R1					
2	ACH580-PDR-03A5-4	R1					
3	ACH580-PDR-04A8-4	R1					
5	ACH580-PDR-07A6-4	R1					
7.5	ACH580-PDR-012A-4	R1					
10	ACH580-PDR-014A-4	R2					
15	ACH580-PDR-023A-4	R2					
20	ACH580-PDR-027A-4	R3				Yes	No
25	ACH580-PDR-034A-4	R3					
30	ACH580-PDR-044A-4	R3					
40	ACH580-PDR-052A-4	R4					
50	ACH580-PDR-065A-4	R4					
60	ACH580-PDR-077A-4	R4					
75	ACH580-PDR-096A-4	R5					
100	ACH580-PDR-124A-4	R6					
125	ACH580-PDR-156A-4	R7					
150	ACH580-PDR-180A-4	R7					
200	ACH580-PDR-240A-4	R8				Yes	Yes <sup>3</sup>
200	ACH580-PCR-240A-4	R8					
250	ACH580-PDR-302A-4	R9					
300	ACH580-PDR-361A-4	R9	Yes	No			
350	ACH580-PDR-414A-4	R9					

580 SERIES SHORT CIRCUIT CURRENT RATINGS (SCCR)

575 V		SCCR With fuses	Drive Fuse provided by ABB	Upstream fuses to achieve UL SCCR
HP	Type code			
2	ACH580-PCR-02A7-6	25 kA		
3	ACH580-PCR-03A9-6			
5	ACH580-PCR-06A1-6			
7.5	ACH580-PCR-09A0-6			
10	ACH580-PCR-011A-6			
15	ACH580-PCR-017A-6			
20	ACH580-PCR-022A-6			
25	ACH580-PCR-027A-6			
30	ACH580-PCR-032A-6			
40	ACH580-PCR-041A-6			
50	ACH580-PCR-052A-6			
60	ACH580-PCR-062A-6			
75	ACH580-PCR-077A-6			
100	ACH580-PCR-099A-6			
125	ACH580-PCR-125A-6			
150	ACH580-PCR-144A-6			
2	ACH580-PDR-02A7-6	100 kA	Yes	No
3	ACH580-PDR-03A9-6			
5	ACH580-PDR-06A1-6			
7.5	ACH580-PDR-09A0-6			
10	ACH580-PDR-011A-6			
15	ACH580-PDR-017A-6			
20	ACH580-PDR-022A-6			
25	ACH580-PDR-027A-6			
30	ACH580-PDR-032A-6			
40	ACH580-PDR-041A-6			
50	ACH580-PDR-052A-6			
60	ACH580-PDR-062A-6			
75	ACH580-PDR-077A-6			
100	ACH580-PDR-099A-6			
125	ACH580-PDR-125A-6			
150	ACH580-PDR-144A-6			